Y12A INTEL SYSTEM DIAGRAM

+3VS5/+5VS5 PG.29
+1.05V/+1.5V PG.30
CPU Core PG.32
DDR3L PG.31
Charger PG.28

SODIMM1 Max. 8GB STD PG.12 — 1600MT/s DDR3 L Channel A
SODIMM2 Max. 8GB STD PG.13 — 1600MT/s DDR3 L Channel B

Intel Bay Trail-M
Power : 5 (Watt)
Package : BGA1170
Size : 25 X 27 (mm)
PG.2~11

eDP (5.4Gb/s) eDP → DP to LVDS Converter RTD 2136 PG.15 → LVDS Interface → LVDS PG.15
DDI (5.4Gb/s) DP Port0 → HDMI PG.17

USB 3.0 → USB3.0 HUB RTS5401 PG.25 → USB 3.0 → USB3.0 Ports X2 PG.18
USB 2.0 → Touch Screen PG.24

HDD PG.23 — SATA2 3GB/s
ODD PG.23 — SATA2 3GB/s

USB 2.0 → USB2.0 Ports X1 PG.18 (Port1)
BT PG.26 (PORT2)
Webcam PG.16 (PORT3)

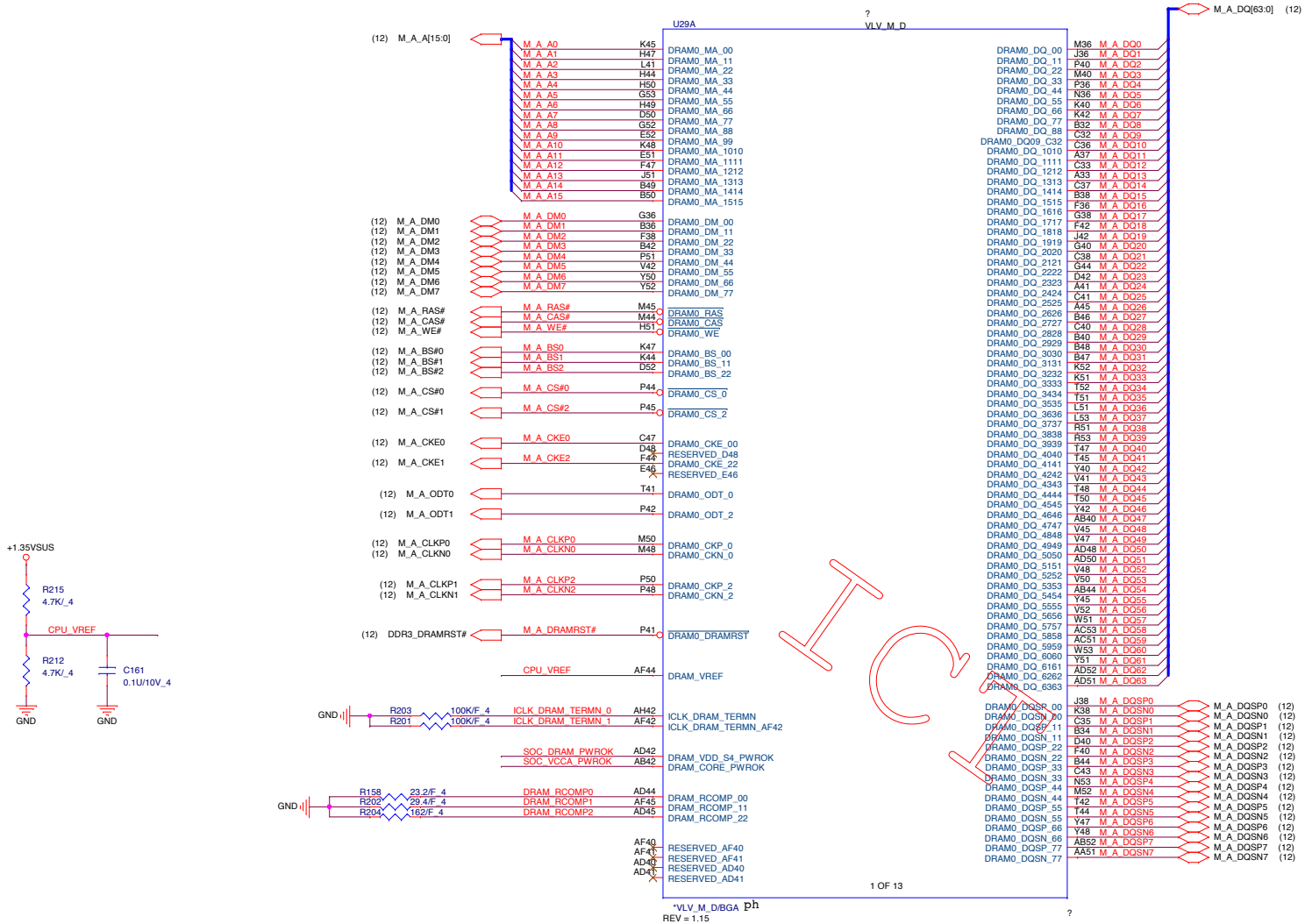
PCI-E x3
LANE0 → Card Reader RTS5239 PG.21
LANE2 → LAN RTL8166EH 10/100 PG.20
LANE1 → WLAN BT COMBO PG.26 — USB 2.0 PORT10

Accelerometer PG.24 — SMBUS
KBC IT8987 PG.27 — LPC
LPC Interface → TPM SLB9665 PG.22; KB PG.22; TP PG.22; ROM PG.6; FAN PG.22

Azalia → AUDIO CODEC ALC 3227 PG.18
Headphone amplifier HPA0022642RTJR PG.19 — Hp → Combo Jack PG.18
MIC
Speaker PG.18

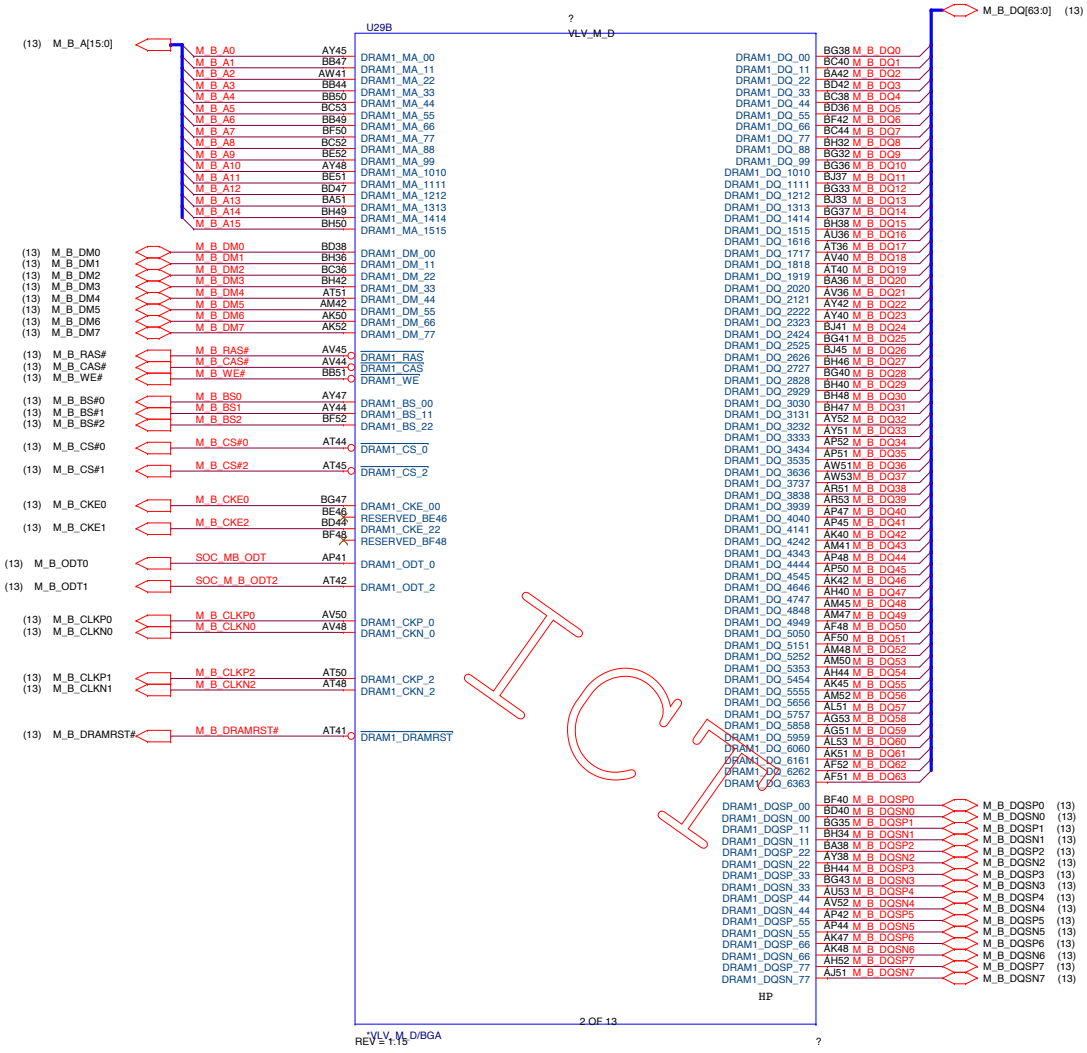
Stackup
TOP
GND
IN1
IN2
VCC
BOT

PROJECT : Y12E-BTM
Quanta Computer Inc.
Document Number: BLOCK DIAGRAM
Rev: 1A
Date: Thursday, May 08, 2014
Sheet 1 of 42



PROJECT : Y12E-BTM
Quanta Computer Inc.

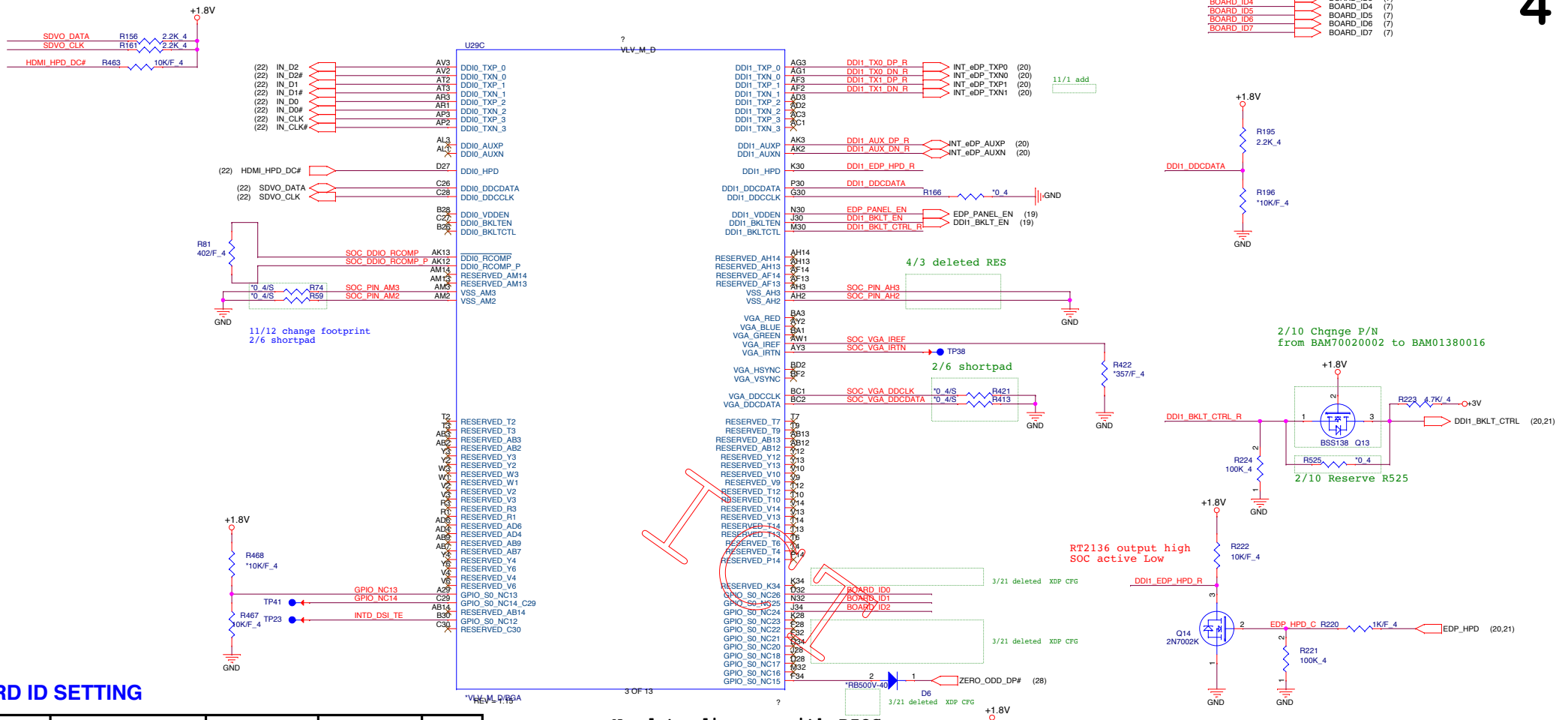
Document Number: Valley 1/9 (DDRA)		Rev: 1A
Date: Thursday, May 08, 2014	Sheet 2	of 42



PROJECT : Y12E-BTM

Quanta Computer Inc.

Document Number	Rev
Valley 2/9 (DDRB)	1A
Date: Thursday, May 08, 2014	Sheet 3 of 42



BOARD ID SETTING

	Reserve (Default = 000)			Pavilion/Envy 00 = Pavilion 01 = Envy 10 = Pavilion Special Edition 11 = Y12E Pavilion		14" = 00 15" = 01 17" = 10		UMA=0 S.G =1
Model	BOARD_ID7	BOARD_ID6	BOARD_ID5	BOARD_ID4	BOARD_ID3	BOARD_ID2	BOARD_ID1	BOARD_ID0
Pavillian 14"	0	0	0	1	1	0	0	1
Pavillian 15.6"	0	0	0	1	1	0	1	1
Pavillian 17"	0	0	0	1	1	1	0	1

PROJECT : Y12E-BTM
Quanta Computer Inc.

Document Number	Rev
Valley 3/9 (Display)	1A
Date: Friday, May 16, 2014	Sheet 4 of 42

HDD

ODD

3/21 add PEG on port0

GPU

WIFI

LAN

3/21 card reader change to port3

Card reader

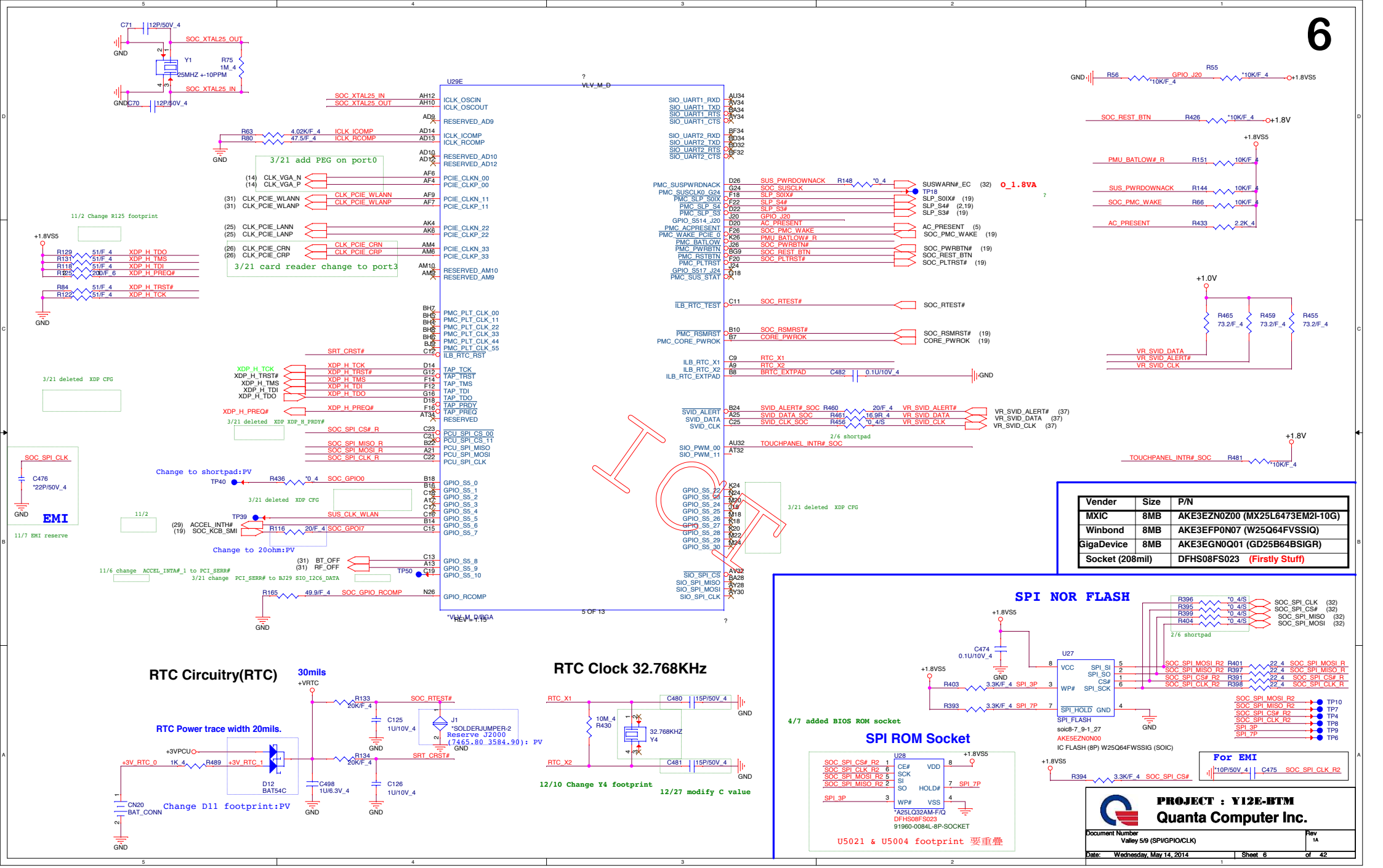
2/10 change P/N from BAM70020002 to BAM01380016

3/28 add PD 100K on SD3_1P8EN for VSDIO 3.3V

3/28 add DGPU_HOLD_RST#_SOC PU +1.8V(stuff)/PD(unstuff)

AC Present: This input pin indicates when the platform is plugged into AC power.

0 = LPC
1 = SPI



Vender	Size	P/N
MXIC	8MB	AKE3EZN0Z00 (MX25L6473EM2I-10G)
Winbond	8MB	AKE3EFP0N07 (W25Q64FVSSIQ)
GigaDevice	8MB	AKE3EGN0Q01 (GD25B64BSIGR)
Socket (208mil)		DFHS08FS023 (Firstly Stuff)

SPI NOR FLASH

SPI ROM Socket

RTC Circuitry(RTC)

RTC Clock 32.768KHz

PROJECT : Y12E-BTM

Quanta Computer Inc.

Document Number: Valley 5/9 (SPI/GPIO/CLK)		Rev: 1A
Date: Wednesday, May 14, 2014	Sheet 6	of 42

+1.8VS5

R400 *10K/F_4 SOC_VOL_UP
R415 *10K/F_4 SOC_VOL_DOWN
R414 *10K/F_4 SOC_HOME_BUT
R408 *10K/F_4 SOC_ROTATE
R409 *10K/F_4 SOC_PWR_BUT

Add HUB power detect circuit: PV

(30) HUB_PWR_DET

U29F

GPIO_S5_31 G2
GPIO_S5_32 M3
GPIO_S5_33 L1
GPIO_S5_34 K2
GPIO_S5_35 K3
GPIO_S5_36 M2
GPIO_S5_37 N3
GPIO_S5_38 P2
GPIO_S5_39 L3
GPIO_S5_40 J3
GPIO_S5_41 P3
GPIO_S5_42 H3
GPIO_S5_43 B12

SOC_VOL_UP
SOC_VOL_DOWN
SOC_HOME_BUT
SOC_ROTATE
SOC_PWR_BUT

Change USB port define: PV

USB 3.0/2.0 HUB
USB2.0 CONN
BT
Camera

(30) USB30_D+ M16 USB_DP0
(30) USB30_D- K16 USB_DN0
(23) USBP1+ J14 USB_DP1
(23) USBP1- G14 USB_DN1
(31) USBP_BT+ K12 USB_DP2
(31) USBP_BT- J12 USB_DN2
(21) USBP_CAM+ K10 USB_DP3
(21) USBP_CAM- H10 USB_DN3

GND
1K_4 R85 ICLK_USB_TERMN_0 D10 ICLK_USB_TERMN_D10
1K_4 R86 ICLK_USB_TERMN_1 F10 ICLK_USB_TERMN
11/2
(29,30) SOC_USB_OC0
R123 10K/F_4 SOC_USB_OC0 C20 USB_OC_00
+1.8VS5 R439 10K/F_4 SOC_USB_OC1 B20 USB_OC_11

R87 45.3/F_4 USB_RCOMP D6 USB_RCOMPO
C7 USB_RCOMPI
GND

GND R89 *0_4 M13 USB_PLL_MON
11/10 Reserver 0R

B4 USB_HSIC0_DATA
B5 USB_HSIC0_STROBE

GND
E2 USB_HSIC1_DATA
D2 USB_HSIC1_STROBE

R429 45.3/F_4 USB_HSIC_RCOMP A7 USB_HSIC_RCOMP
R124 49.9/F_4
LPC_RCOMP BF18 LPC_RCOMP

11/7
EMI
CLK_33M_KBC
CLK_33M_TPM
C477 22P/50V_4
C483 22P/50V_4
11/2

(27,31,32) LAD0 LAD0 BH16 ILB_LPC_AD_00
(27,31,32) LAD1 LAD1 BJ17 ILB_LPC_AD_11
(27,31,32) LAD2 LAD2 BJ13 ILB_LPC_AD_22
(27,31,32) LAD3 LAD3 BG14 ILB_LPC_AD_33
(27,31,32) LFRAME# LFRAME# BG17 ILB_LPC_FRAME
(32) CLK_33M_KBC R417 22_6 CLK_33M_KBC_R BG15 ILB_LPC_CLK_00
(27,31) CLK_33M_TPM R432 22_6 CLK_33M_TPM_R BH14 ILB_LPC_CLK_11
(27,32) L_CLKRUN# R418 22_6 SOC_CLKRUN# BG16 ILB_LPC_CLKRUN
(19) SOC_SERIRQ SOC_SERIRQ BG13 ILB_LPC_SERIRQ

+1.8V
R105 2.2K_4 SMB_SOC_DATA BG12 PCU_SMB_DATA
R98 2.2K_4 SMB_SOC_CLK BH10 PCU_SMB_CLK
R427 10K/F_4 SMB_SOC_ALERTB BG11 PCU_SMB_ALERT

CLK_33M_KBC_R R560 *0_6 CLK_33M_TPM
5/6 for LPC_CLK 3 branches

(19) SMB_SOC_DATA SMB_SOC_DATA
(19) SMB_SOC_CLK SMB_SOC_CLK

*VLV_M_D/BGA REV=1.15
6 OF 13
VLV_M_D

RESERVED_M10 M10
RESERVED_M9 M9
RESERVED_P7 P7
RESERVED_P6 P6
RESERVED_M7 M7
USB3_REXT0 M12 USB3_P0_REXT R88 1.24K/F_4
RESERVED_P10 P10
RESERVED_P12 P12
GND
RESERVED_M4 M4
RESERVED_M6 M6
USB3_RXP0 D4 USB30_RX+ USB30_RX+ (30)
USB3_RXN0 E3 USB30_RX- USB30_RX- (30)
USB3_TXP0 K6 USB30_TX+ USB30_TX+ (30)
USB3_TXN0 K7 USB30_TX- USB30_TX- (30)
RESERVED_H8 H8
RESERVED_H7 G7
RESERVED_H5 H5
RESERVED_H4 G4

GPIO_S0_SC_55 BD12 BT_COMBO_EN#_R
GPIO_S0_SC_56 BC12 TOP_SWAP
GPIO_S0_SC_57 BD14 SOC_UART_TX
GPIO_S0_SC_58 BC14
GPIO_S0_SC_59 BF14 SOC_SENSOR_HUB_WAKE
GPIO_S0_SC_60 BD16 TOUCH_PANEL_SOC_RST#
GPIO_S0_SC_61 BC16 SOC_UART_RX
ILB_8254_SPKR BH12 ACZ_SPKR (23)

SIO_I2C0_DATA BH22 BOARD_ID3 (4)
SIO_I2C0_CLK BG23 BOARD_ID4 (4)
SIO_I2C1_DATA BG24 BOARD_ID5 (4)
SIO_I2C1_CLK BH24 BOARD_ID6 (4)
SIO_I2C2_DATA BG25 BOARD_ID7 (4)
SIO_I2C2_CLK BJ25 I2C_2_SCL_R TP43
SIO_I2C3_DATA BG26 I2C_3_SDA TP44
SIO_I2C3_CLK BH26 I2C_3_SCL TP45
SIO_I2C4_DATA BF27 I2C_4_SDA TP46
SIO_I2C4_CLK BG27 I2C_4_SCL TP47
SIO_I2C5_DATA BH28 I2C_5_SDA TP48
SIO_I2C5_CLK BG28 I2C_5_SCL TP49
SIO_I2C6_DATA BJ29 PCI_SERR# PCI_SERR# (32)
SIO_I2C6_CLK BG29 I2C_6_SCL TP51
3/21 change PCI_SERR# to BJ29 SIO_I2C6_DATA
GPIO_S0_SC_092 BH30 I2C_NFC_SOC_SDA TP52
GPIO_S0_SC_093 BG30 I2C_NFC_SOC_SCL TP53

GND R425 10K/F_4 TOP_SWAP R406 *10K/F_4 +1.8V

USB 3.0/2.0 HUB
2/10 change P/N from BAM70020002 to BAM01380016
Q37 BSS138
GND 1 3 ACC_LED# (23)
TOUCH_PANEL_SOC_RST#
Change R128 to 2.2K ohm: PV
+1.8V
TOUCH_PANEL_SOC_RST# R431 2.2K_4
SOC_SENSOR_HUB_WAKE R407 10K/F_4

SOC_UART_TX R109 *0_4 SOC_UART_RX
Un-Stuff for Test Only

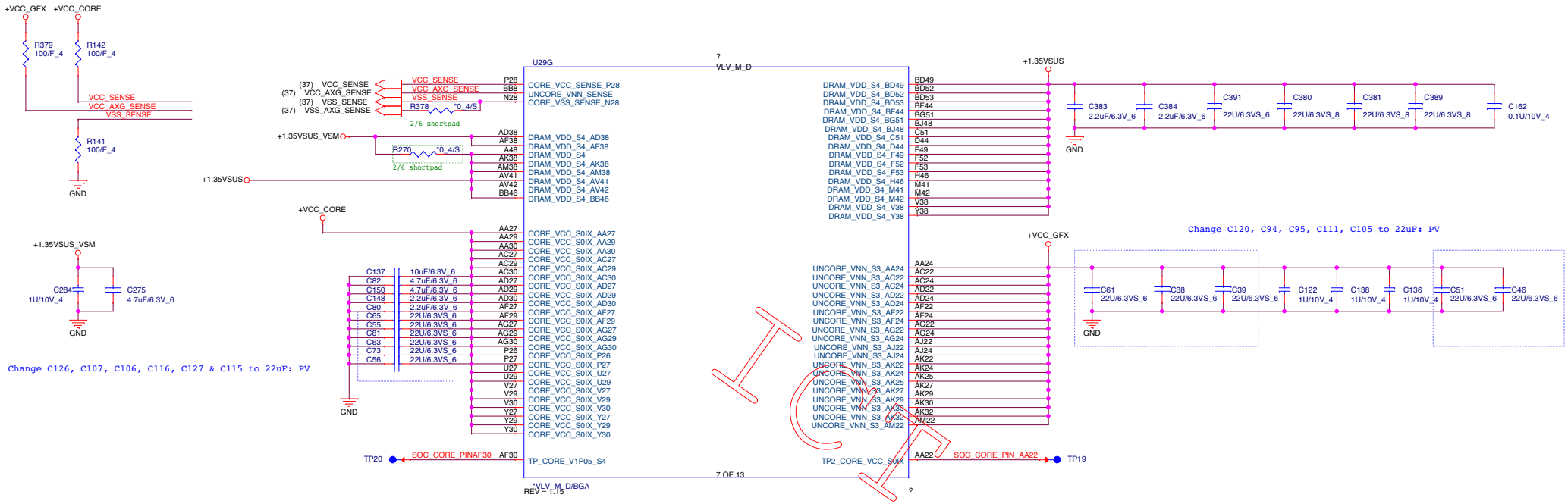
12/13

+1.8V
BT_COMBO_EN#_R R416 *2.2K_4
Reserve R2021:PV

2/10 Change P/N from BAM70020002 to BAM01380016
BT_COMBO_EN#_R
Q36 *BSS138 1 3 BT_COMBO_EN# (31)
+1.8V

PROJECT : Y12E-BTM
Quanta Computer Inc.

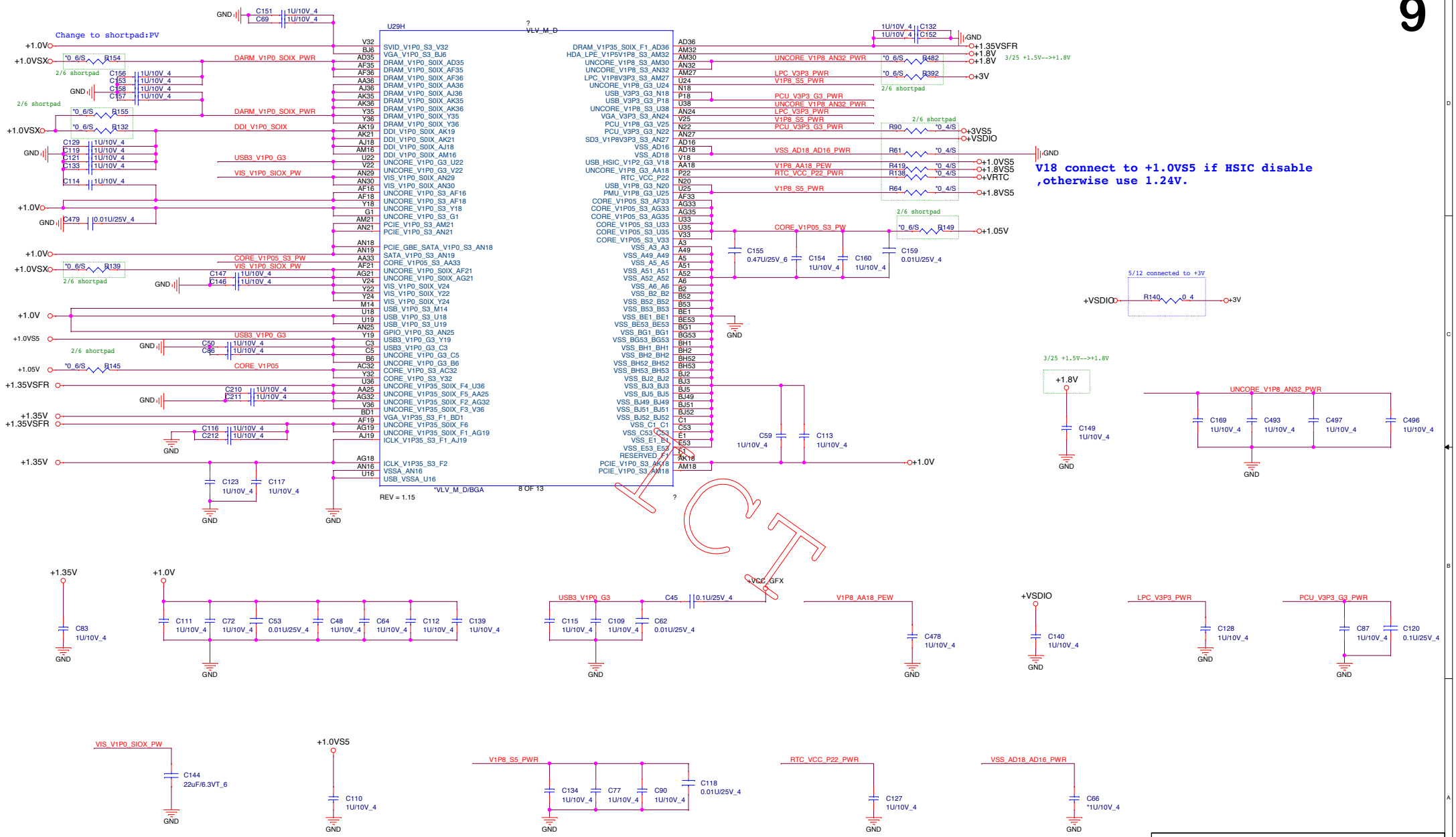
Document Number	Rev
Valley 6/9 (USB/LPC/I2C)	1A
Date: Thursday, May 08, 2014	Sheet 7 of 42



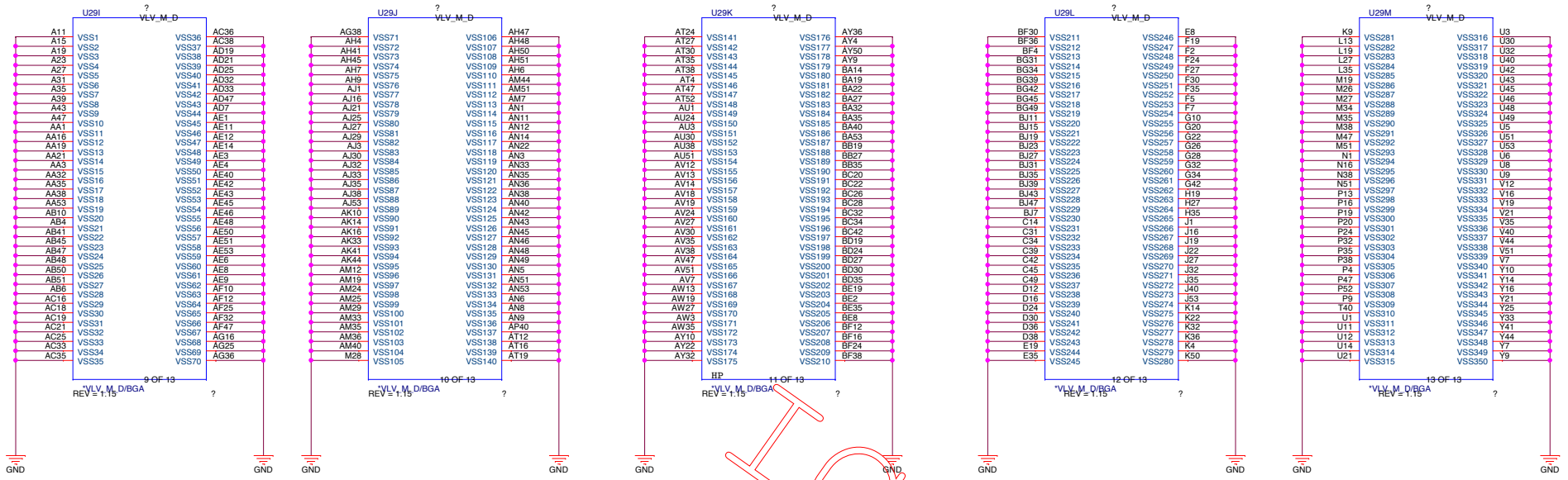
PROJECT : Y12E-BTM

Quanta Computer Inc.

Document Number: Valley 7/9 (Power 1)		Rev: 1A
Date: Thursday, May 08, 2014	Sheet 8	of 42



PROJECT : Y12E-BTM
Quanta Computer Inc.
Document Number
Valley 8/9 (Power 2)
Rev 1A
Date: Monday, May 12, 2014
Sheet 9 of 42



PROJECT : Y12E-BTM

Quanta Computer Inc.

Document Number: Valley 9/9 (GND)		Rev: 1A
Date: Thursday, May 08, 2014	Sheet 10	of 42

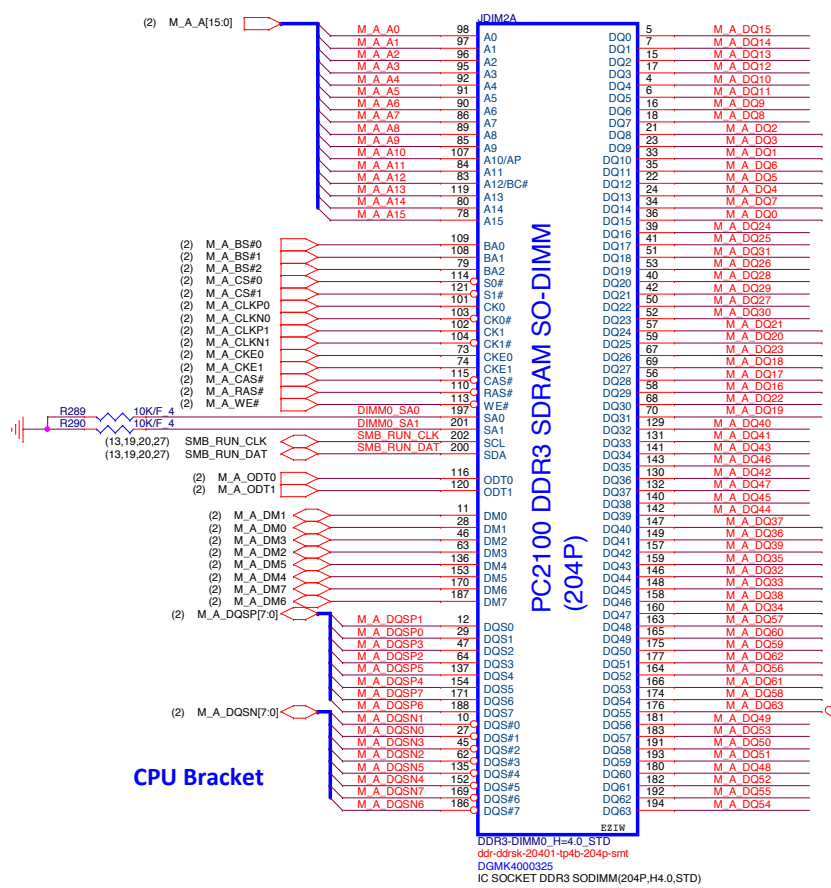
3/21 deleted XDP CN6

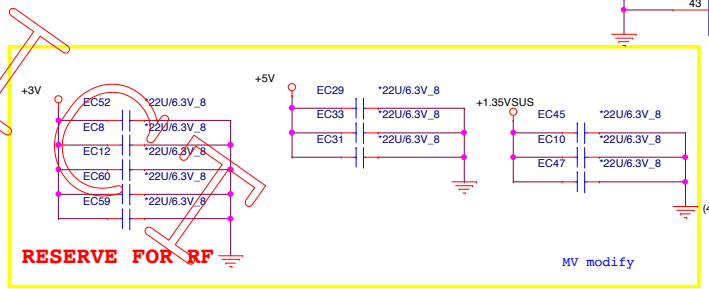
ICT

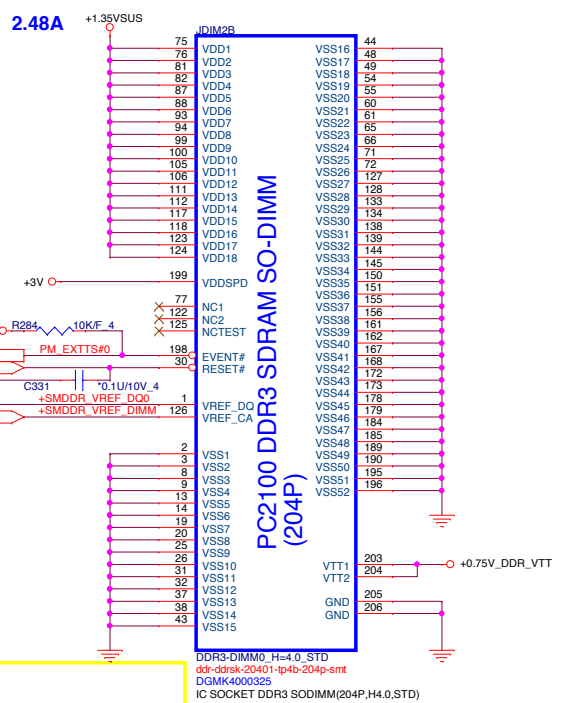
PROJECT : Y12E-BTM

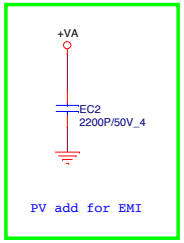
Quanta Computer Inc.

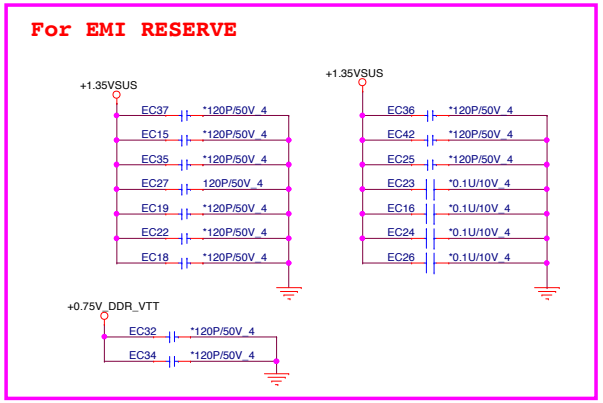
Document Number	Rev
HSW XDP & APS	1A
Date: Thursday, May 08, 2014	Sheet 11 of 42

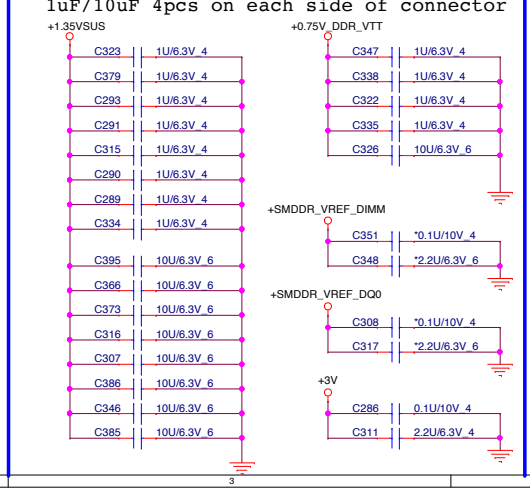


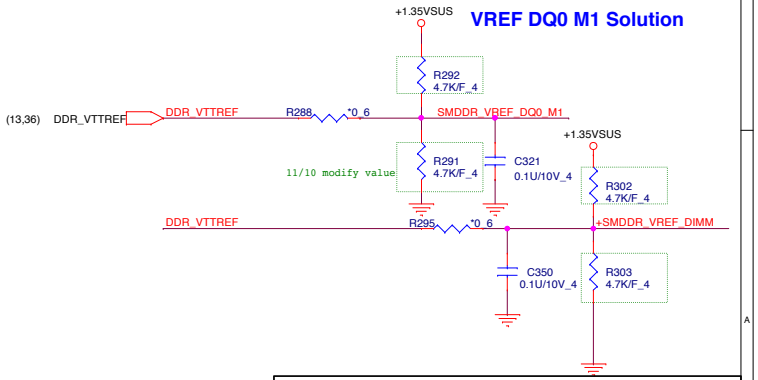








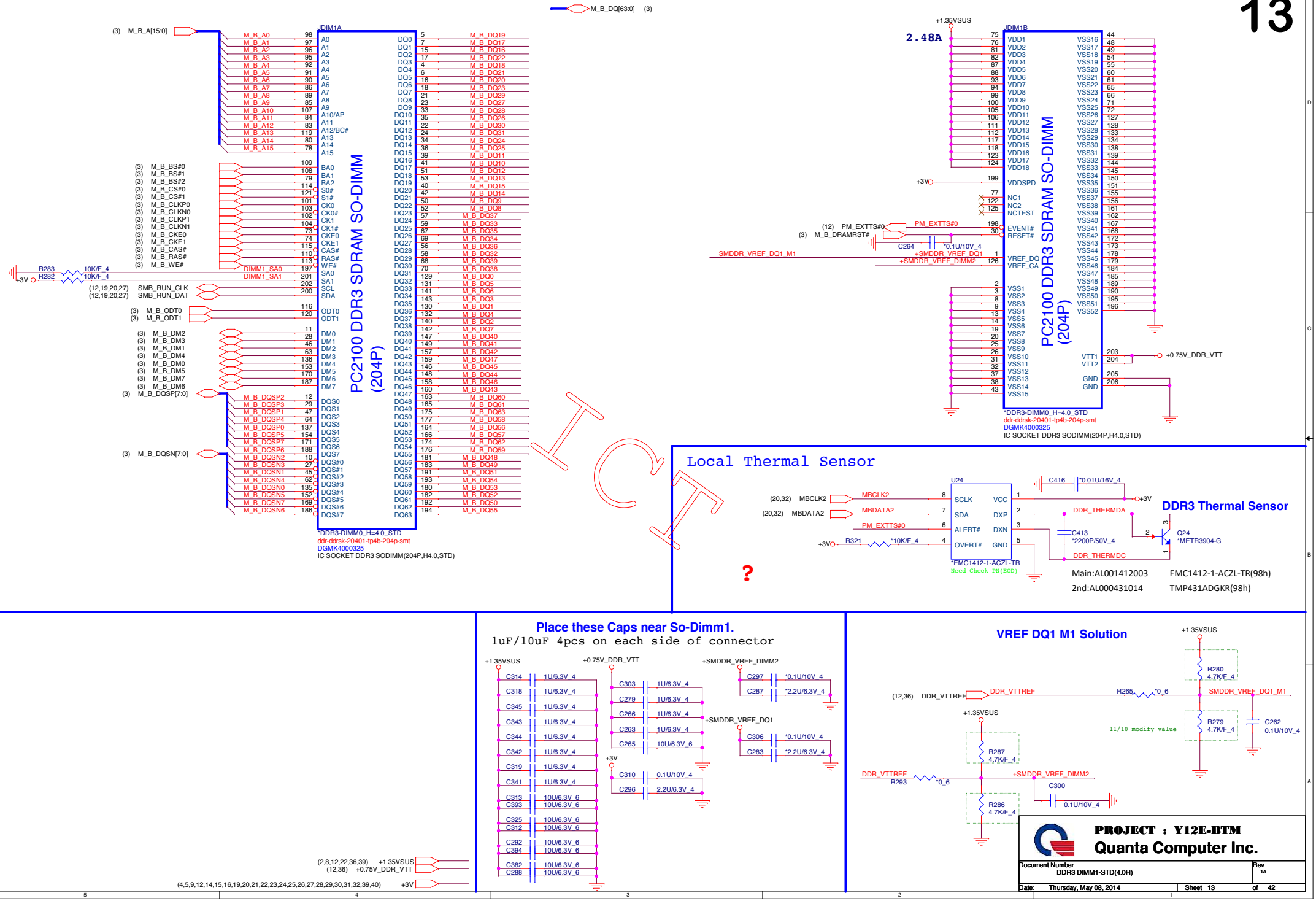




PROJECT : Y12E-BTM

Quanta Computer Inc.

Document Number	Rev
DDR3 DIMM0-STD(4.0H)	1A
Date: Thursday, May 08, 2014	Sheet 12 of 42


M_B_DQ[63:0] (3)
(3) M_B_A[15:0]
JDIM1A
PC2100 DDR3 SDRAM SO-DIMM (204P)
*DDR3-DIMM0_H=4.0_STD
ddr-ddrsk-20401-tp4b-204p-smt
DGMK4000325
IC SOCKET DDR3 SODIMM(204P,H4.0,STD)
+1.35VSUS
2.48A
JDIM1B
PC2100 DDR3 SDRAM SO-DIMM (204P)
*DDR3-DIMM0_H=4.0_STD
ddr-ddrsk-20401-tp4b-204p-smt
DGMK4000325
IC SOCKET DDR3 SODIMM(204P,H4.0,STD)
Local Thermal Sensor
U24
EMC1412-1-ACZL-TR
Need Check PN(EOD)
DDR3 Thermal Sensor
Main:AL001412003 EMC1412-1-ACZL-TR(98h)
2nd:AL000431014 TMP431ADGKR(98h)
Place these Caps near So-Dimm1.
1uF/10uF 4pcs on each side of connector
VREF DQ1 M1 Solution
PROJECT : Y12E-BTM
Quanta Computer Inc.
Document Number DDR3 DIMM1-STD(4.0H)
Rev 1A
Date: Thursday, May 08, 2014
Sheet 13 of 42

PEX_IOVDD + PEX_IOVDDQ = 1.042A

4/2 stuff 1 22u(AA10)

PEX_PLL_HVDD + PEX_SVDD_3V3 = 143mA

PEX_PLLVDD = 130mA

3/25 deleted PEG1~3, then add test points

NVDD = 32.22 ~ 26.66 A

VDD33 = 56mA

4/3(remove GC6) unstuff U5002 and stuff R5081 for PEGX_RST#.

PROJECT :U82
Quanta Computer Inc.

Size	Document Number	Rev
Custom	N14M-GS (PCIE I/F) /NVDD	2A
Date: Friday, May 16, 2014	Sheet 14 of 42	

U14B

R550 10K/F_4 PS_FB_CLAMP F3

PV modify

FBA_ODT_L FBA_CMD2 R6 10K/F_4
FBA_ODT_H FBA_CMD18 R300 10K/F_4
FBA_RST# FBA_CMD5 R271 10K/F_4
FBA_CKE_L FBA_CMD3 R13 10K/F_4
FBA_CKE_H FBA_CMD19 R301 10K/F_4

TP17 FBA_CMD1
TP13 FBA_CMD17
TP27 FBA_CMD31

+1.35V_GFX
R462 *60.4_4 F22 FBA_DEBUG0
R464 *60.4_4 J22 FBA_DEBUG1

(18) VMA_CLK0 D24 FBA_CLK0
(18) VMA_CLK0# D25 FBA_CLK0
(18) VMA_CLK1 N22 FBA_CLK1
(18) VMA_CLK1# M22 FBA_CLK1

FB_PLLAVDD = 55mA

+1.05V_GFX L40 HCB1005KF-330T30(33 OHM) FB_PLLAVDD F16
C590 22U/6.3VS_6
C567 0.1U/10V_4
C541 0.1U/10V_4
C542 0.1U/10V_4
P22 FB_PLLAVDD
H22

FB_DLLAVDD = 15mA

NC GF119
FB_CLAMP GF117
FB_DLLAVDD GF119
FB_PLLAVDD GF117

INT

bga595-nvidia-n13p-gv2-s-a2 COMMON

2/14 FBA

FBA_D0 E18 VMA_DQ0
FBA_D1 F18 VMA_DQ1
FBA_D2 E16 VMA_DQ2
FBA_D3 F17 VMA_DQ3
FBA_D4 D20 VMA_DQ4
FBA_D5 D21 VMA_DQ5
FBA_D6 F20 VMA_DQ6
FBA_D7 E21 VMA_DQ7
FBA_D8 E15 VMA_DQ8
FBA_D9 D15 VMA_DQ9
FBA_D10 F15 VMA_DQ10
FBA_D11 F13 VMA_DQ11
FBA_D12 C13 VMA_DQ12
FBA_D13 B13 VMA_DQ13
FBA_D14 E13 VMA_DQ14
FBA_D15 D13 VMA_DQ15
FBA_D16 B15 VMA_DQ16
FBA_D17 C16 VMA_DQ17
FBA_D18 A13 VMA_DQ18
FBA_D19 A15 VMA_DQ19
FBA_D20 B18 VMA_DQ20
FBA_D21 A18 VMA_DQ21
FBA_D22 A19 VMA_DQ22
FBA_D23 C19 VMA_DQ23
FBA_D24 B24 VMA_DQ24
FBA_D25 C23 VMA_DQ25
FBA_D26 A25 VMA_DQ26
FBA_D27 A24 VMA_DQ27
FBA_D28 A21 VMA_DQ28
FBA_D29 B21 VMA_DQ29
FBA_D30 C20 VMA_DQ30
FBA_D31 C21 VMA_DQ31
FBA_D32 R22 VMA_DQ32
FBA_D33 R24 VMA_DQ33
FBA_D34 T22 VMA_DQ34
FBA_D35 R23 VMA_DQ35
FBA_D36 N25 VMA_DQ36
FBA_D37 N26 VMA_DQ37
FBA_D38 N23 VMA_DQ38
FBA_D39 N24 VMA_DQ39
FBA_D40 V23 VMA_DQ40
FBA_D41 V22 VMA_DQ41
FBA_D42 T23 VMA_DQ42
FBA_D43 U22 VMA_DQ43
FBA_D44 Y24 VMA_DQ44
FBA_D45 AA24 VMA_DQ45
FBA_D46 Y22 VMA_DQ46
FBA_D47 AA23 VMA_DQ47
FBA_D48 AD27 VMA_DQ48
FBA_D49 AB25 VMA_DQ49
FBA_D50 AD26 VMA_DQ50
FBA_D51 AC25 VMA_DQ51
FBA_D52 AA27 VMA_DQ52
FBA_D53 AA26 VMA_DQ53
FBA_D54 W26 VMA_DQ54
FBA_D55 Y25 VMA_DQ55
FBA_D56 R26 VMA_DQ56
FBA_D57 T25 VMA_DQ57
FBA_D58 N27 VMA_DQ58
FBA_D59 R27 VMA_DQ59
FBA_D60 V26 VMA_DQ60
FBA_D61 V27 VMA_DQ61
FBA_D62 W27 VMA_DQ62
FBA_D63 W25 VMA_DQ63

FBA_DQM0 D19 VMA_DM0
FBA_DQM1 D14 VMA_DM1
FBA_DQM2 C17 VMA_DM2
FBA_DQM3 C22 VMA_DM3
FBA_DQM4 P24 VMA_DM4
FBA_DQM5 W24 VMA_DM5
FBA_DQM6 AA25 VMA_DM6
FBA_DQM7 U25 VMA_DM7
VMA_DM[7:0] (18)

FBA_DQS_WP0 E19 VMA_WDQS0
FBA_DQS_WP1 C15 VMA_WDQS1
FBA_DQS_WP2 B16 VMA_WDQS2
FBA_DQS_WP3 B22 VMA_WDQS3
FBA_DQS_WP4 R25 VMA_WDQS4
FBA_DQS_WP5 W23 VMA_WDQS5
FBA_DQS_WP6 AB26 VMA_WDQS6
FBA_DQS_WP7 T26 VMA_WDQS7
VMA_WDQS[7:0] (18)

FBA_DQS_RN0 F19 VMA_RDQS0
FBA_DQS_RN1 C14 VMA_RDQS1
FBA_DQS_RN2 A16 VMA_RDQS2
FBA_DQS_RN3 A22 VMA_RDQS3
FBA_DQS_RN4 P25 VMA_RDQS4
FBA_DQS_RN5 W22 VMA_RDQS5
FBA_DQS_RN6 AB27 VMA_RDQS6
FBA_DQS_RN7 T27 VMA_RDQS7
VMA_RDQS[7:0] (18)

FB_VREF_PROBE D23

VMA_DQ[63:0] VMA_DQ[63:0] (18)

FBVDDQ + FBVDD = 3.116A

+1.35V_GFX
C543 0.1U/10V_4
C558 0.1U/10V_4
C596 2.2U/10V_6
C597 2.2U/10V_6
C609 4.7U/6.3V_6
C612 10U/6.3V_6
C595 22U/6.3VS_6
C561 4.7U/6.3V_6

U14D 12/14 FBVDDQ

B26 C25 E23 E26 F14 F21 G13 G14 G15 G16 G18 G19 G20 G21 H24 H26 J21 K21 L22 L24 L26 M21 N21 R21 T21 V21 W21 FBVDDQ

FB_CAL_PD_VDDQ D22 FB_CAL_PD_VDDQ R294 40.2/F_4 +1.35V_GFX
FB_CAL_PU_GND C24 FB_CAL_PU_GND R275 42.2/F_4
FB_CALTERM_GND B25 FB_CALTERM_GND R274 51.1/F_4

bga595-nvidia-n13p-gv2-s-a2 COMMON

U14F 13/14 GND

A2 AB17 AB20 AB24 AC2 AC22 AC26 AC5 AC8 AD12 AD13 AD15 AD16 AD18 AD19 AD21 AD22 AE11 AE14 AE17 AE20 AB11 AF1 AF11 AF14 AF17 AF20 AF23 AF5 AF8 AG2 AG26 AB14 B1 B11 B14 B17 B20 B23 B27 B5 B8 E11 E14 E17 E2 E20 E22 E25 E5 E8 H2 H23 H25 H5 K11 K13 K15 K17 L10 L12 L14 L16 L18 L2 L23 L25 L5 M11 GND

M13 M15 M17 N10 N12 N14 N16 N18 P11 P13 P15 P17 P2 P23 P26 P5 R10 R12 R14 R16 R18 T11 T13 T15 T17 U10 U12 U14 U16 U18 U2 U23 U26 U5 V11 V13 V15 V17 Y2 Y23 Y26 Y5 GND

AA7 AB7 GND

bga595-nvidia-n13p-gv2-s-a2 COMMON

For support GC6

Change Default setting from DGPU_PWR_EN for tuning sequence

+3V
U9 *NL17SZ32DFT2G
C611 0.1U/10V_4

(19,42) DGPU_PWR_EN R529 *0_4
(40,42) DGPU_VC_EN R530 *0_4
(17,19) GC6_FB_EN

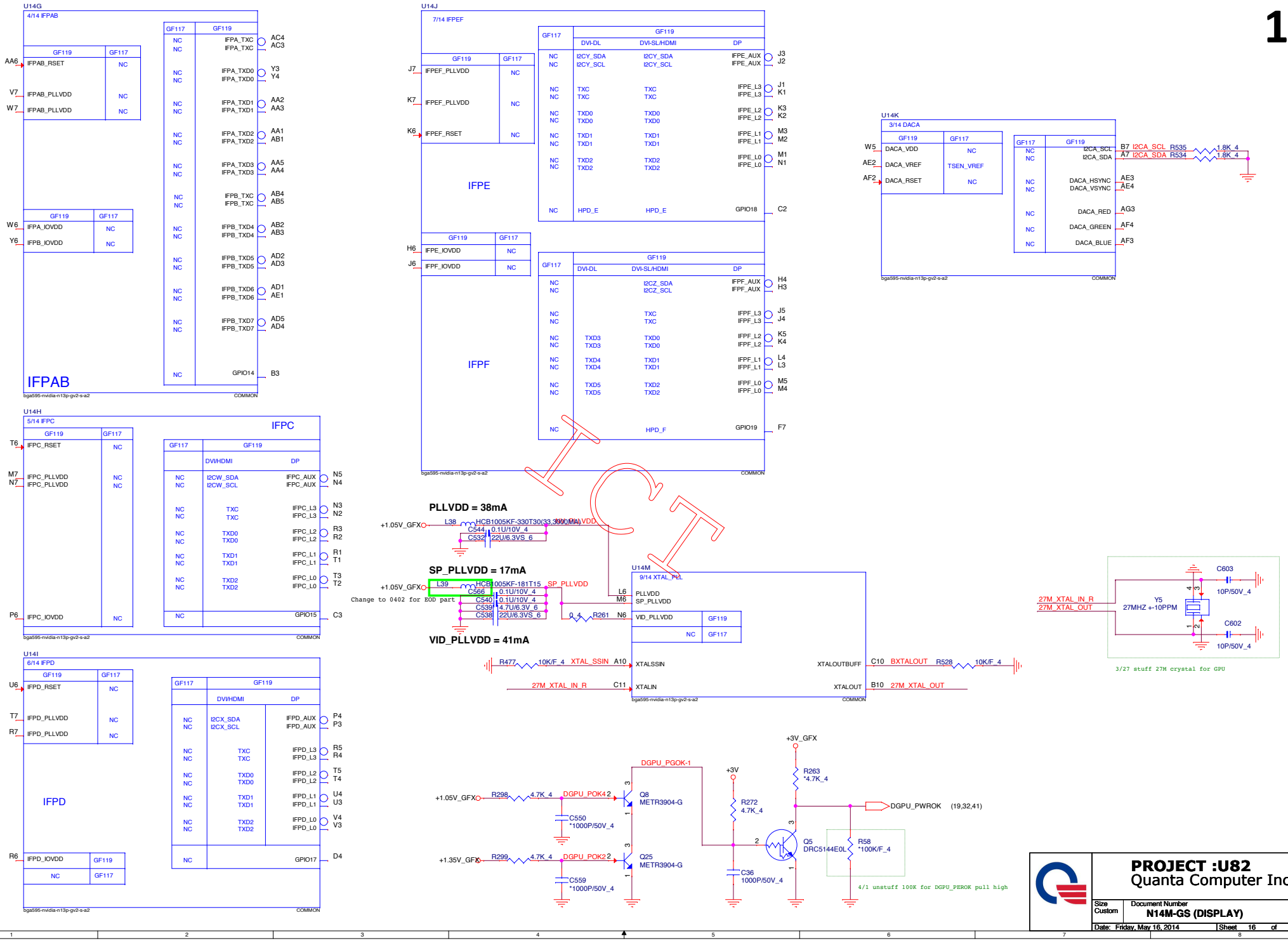
DGPU_FB_EN (41)

R531 100K/F_4
R526 0_4

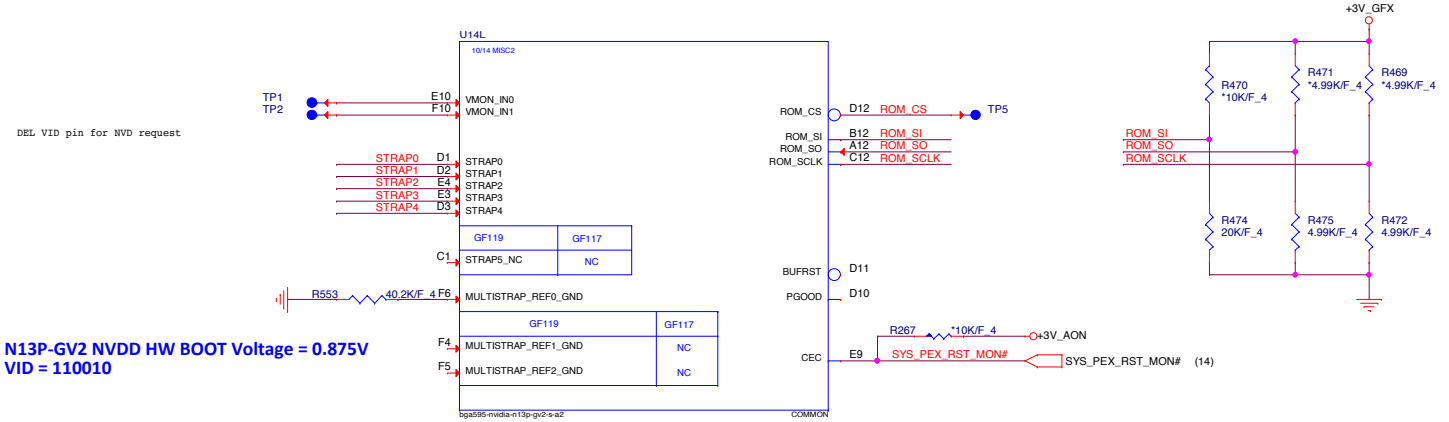
4/3 (remove GC6)add 0 ohm for removing GC6 function
un stuff U5020 and R5441.

PROJECT :U82
Quanta Computer Inc.

Size	Document Number	Rev
Custom	N14M-GS (MEMORY/GND)	2A
Date: Monday, May 12, 2014	Sheet 15 of 42	



PROJECT :U82	
Quanta Computer Inc.	
Size: Custom	Document Number: N14M-GS (DISPLAY)
Rev: 2A	
Date: Friday, May 16, 2014	Sheet 16 of 42

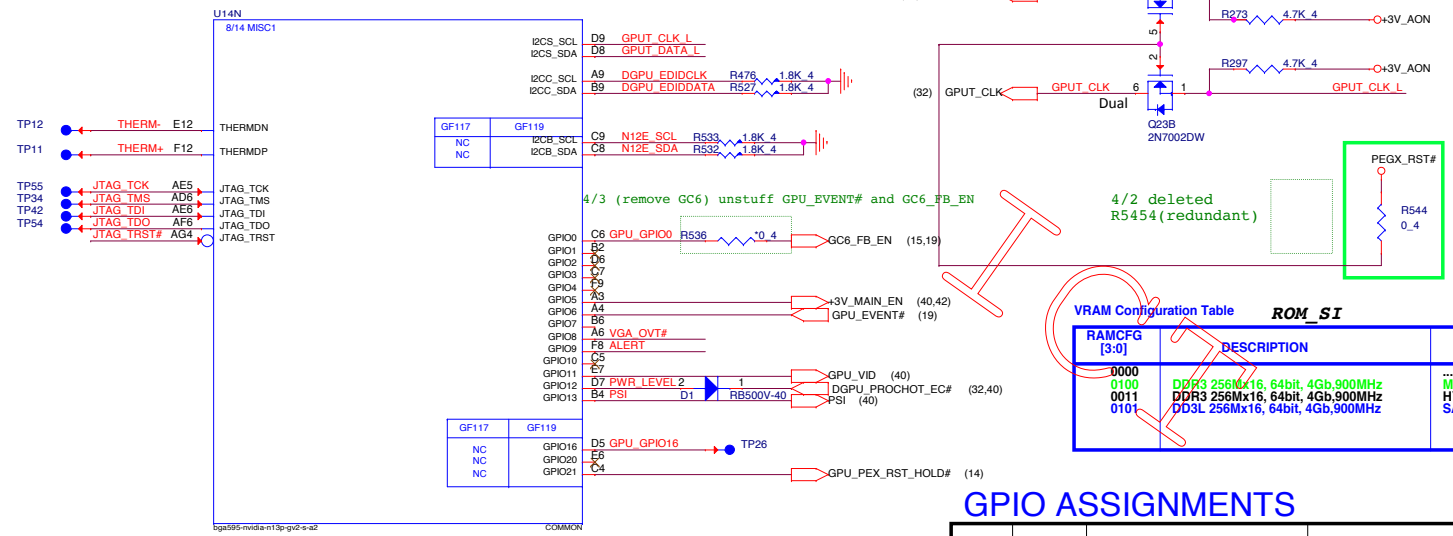


4.99k CS24992FB26
10k CS31002FB26
15k CS31502FB24
20k CS32002FB29
24.9k CS32492FB16
30.1k CS33012FB18
34.8k CS33482FB22
45.3k CS34532FB18

N13P-GV2 NVDD HW BOOT Voltage = 0.875V
VID = 110010

Table 15-2. Resistance Mapping to Hex Values

Resistor Values	Pull-Up to 3V3_MAIN	Pull-Down to GND
4.99 kΩ	1000	0000
10.0 kΩ	1001	0001
15.0 kΩ	1010	0010
20.0 kΩ	1011	0011
24.9 kΩ	1100	0100
30.1 kΩ	1101	0101
34.8 kΩ	1110	0110
45.3 kΩ	1111	0111

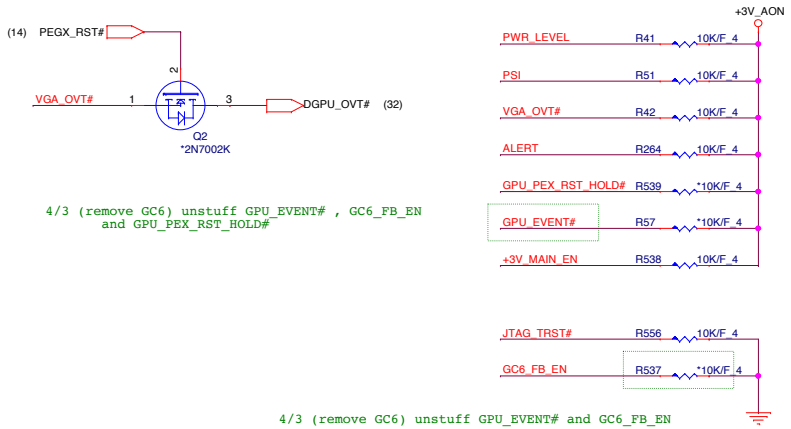


Hynix should be 0x3, R440 20K 1%
Micro Should be 0x4, R440 24.9K 1%
Samsung Should be 0x5, R440 30.1K 1%

VRAM Configuration Table

ROM_SI

RAMCFG [3:0]	DESCRIPTION	Vendor	Vendor P/N	QCI P/N	QBC	*TOP B/S*
0000	...	...	...			
0100	DDR3 256Mx16, 64bit, 4Gb,900MHz	Micron	MT41J256M16HA-093G:E		AKD5PZSTL01	AKD5PZSTL00
0011	DDR3 256Mx16, 64bit, 4Gb,900MHz	HYNIX	H5TC4G63AFR-11C		AKD5PGWTW08	AKD5PGWTW07
0101	DD3L 256Mx16, 64bit, 4Gb,900MHz	SAMSUNG	4W4G1646D-BC1A	AKD5PGWT500		



GPIO ASSIGNMENTS

GPIO	I/O	PIN	USAGE
0	IN	FB_CLAMP_MON	FB Clamp monitor
1	OUT	MEM_VDD_CTL	Memory VDD VID
2	OUT	LCD_BL_PWM	Panel Backlight PWM
3	OUT	LCD_VCC	PANEL POWER ENABLE
4	OUT	LCD_BLEN	PANEL BACKLIGHT ENABLE
5	OUT	Reserved	--
6	OUT	FB_CLAMP_TGL_REQ	Active low FB Clamp toggle request
7	OUT	3D VISION	3D VISION LEFT/RIGHT signal
8	I/O	OVERT	ACTIVE LOW THERMAL OVER TEMP
9	I/O	ALERT	ACTIVE LOW THERMAL ALERT
10	OUT	MEM VREF_CTL	MEMMORY VREF CONTROL
11	OUT	PWR_VID	GPU CORE_VDD PWM Control signal
12	IN	PWR_LEVEL	AC Power detect or power supply overdraw input
13	OUT	PSI	Phase Shedding

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Quanta Computer Inc.

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Custom	N14M-GS (GPIO/STRAPS)	2A

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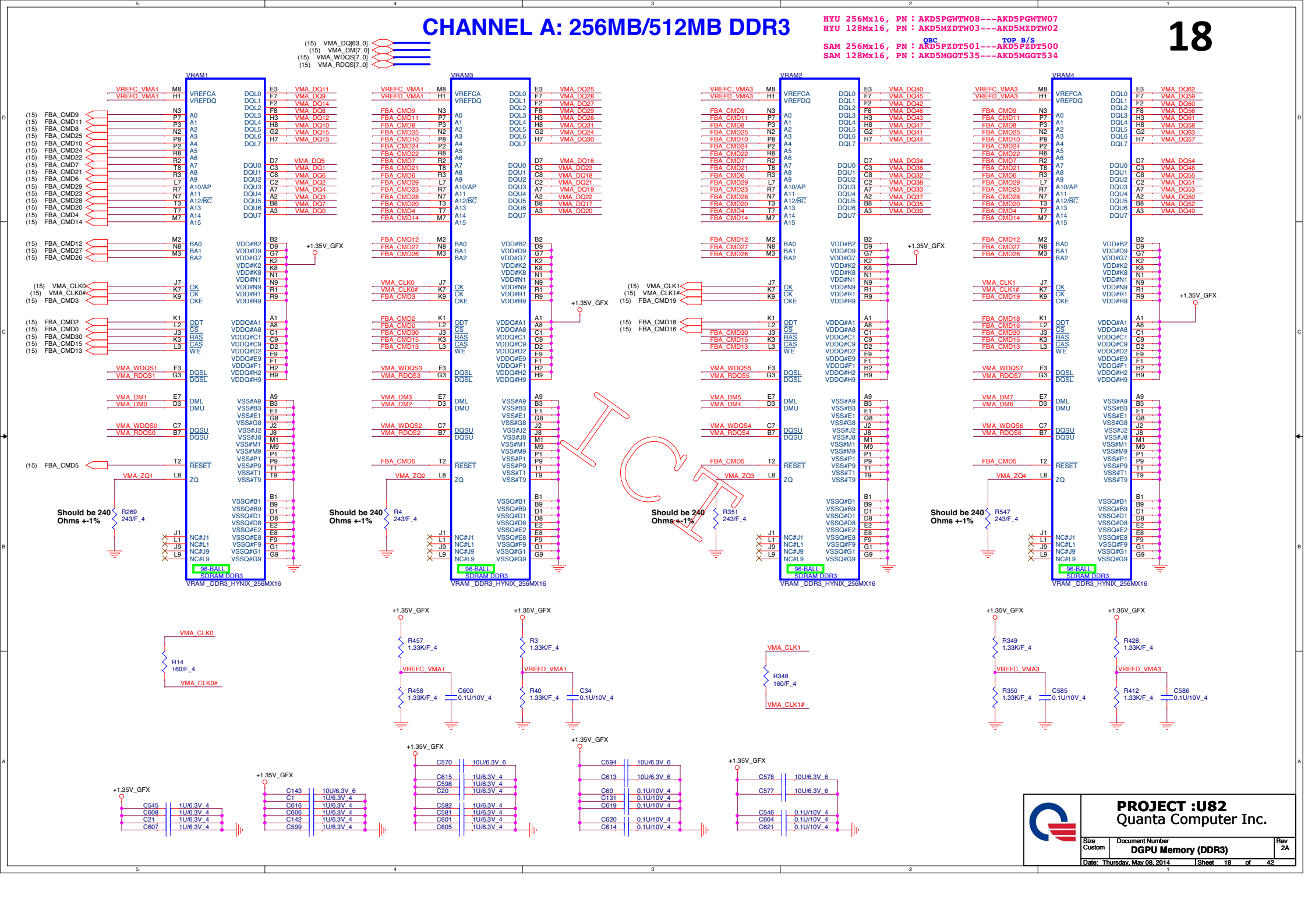
CHANNEL A: 256MB/512MB DDR3

HYU 256Mx16, PN : AKD5PGWTW08---AKD5PGWTW07
HYU 128Mx16, PN : AKD5MZDTW03---AKD5MZDTW02

QBC TOP B/S
SAM 256Mx16, PN : AKD5PZDT501---AKD5PZDT500
SAM 128Mx16, PN : AKD5MGGT535---AKD5MGGT534



PROJECT :U82
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DGPU Memory (DDR3)	2A
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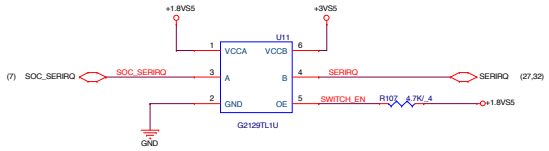
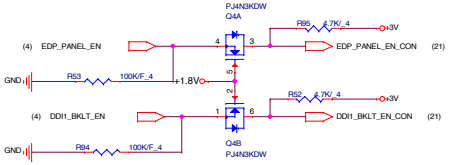
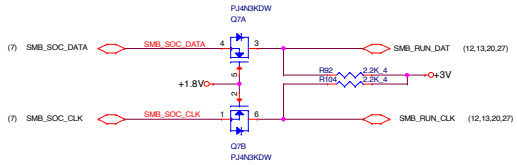
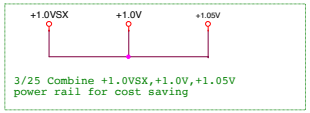
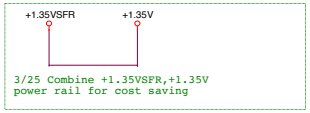


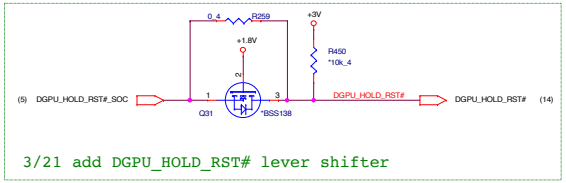
11/4 Delete deplicate TP lever shift



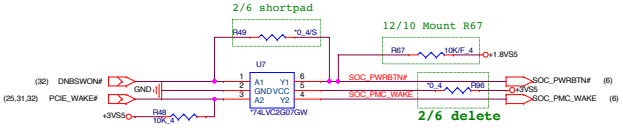


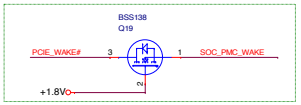


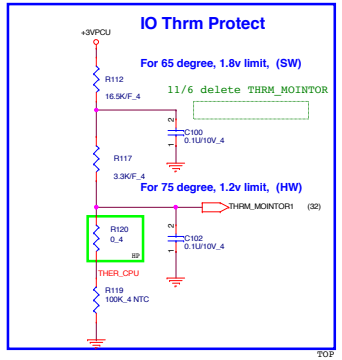


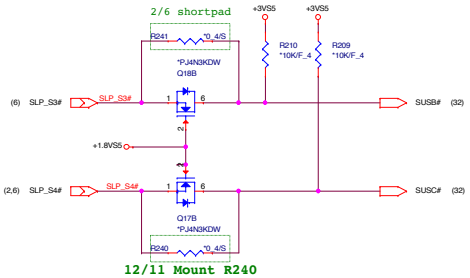


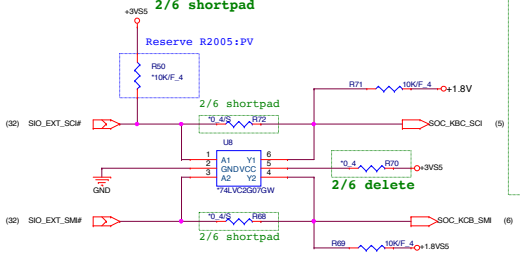
3/21 add DGPU_HOLD_RST# lever shifter

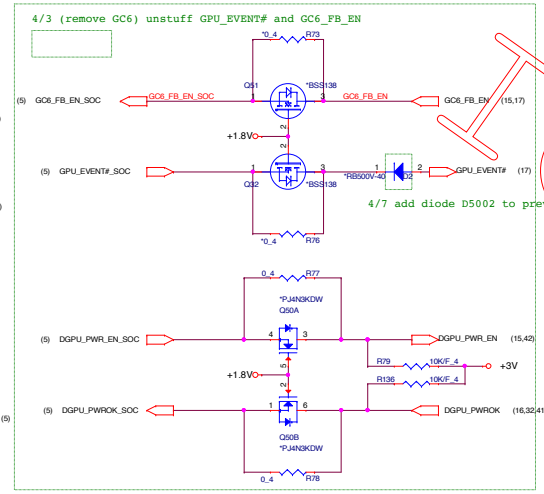




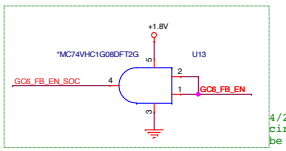




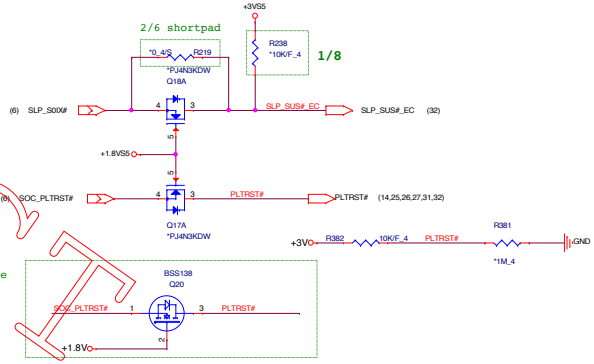


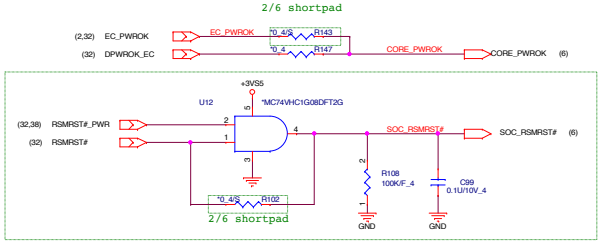


3/28 add level shifter for GPU GPIO



4/2 reserved an And gate to avoid voltage divider circuit from nvidia suggestion (the AND gate need to be replaced to +1.8V Vcc driven)





11/5 Add AND gate

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Quanta Computer Inc.
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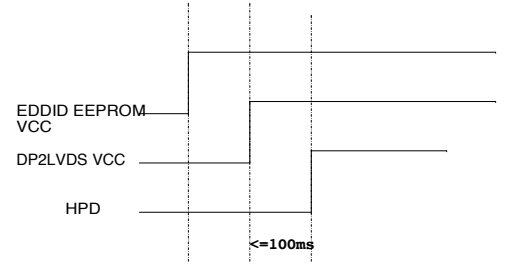
RTD2136 Dual Channel only

RTD2136S Power Up Sequence 20



Reserve for co layout EDP CON, EDP only please stuff

R374 *0_4 INT_eDP_AUXN_R → INT_eDP_AUXN_R (21)
R375 *0_4 INT_eDP_AUXP_R → INT_eDP_AUXP_R (21)
R29 *0_4 INT_eDP_TXP0_R → INT_eDP_TXP0_R (21)
R30 *0_4 INT_eDP_TXN0_R → INT_eDP_TXN0_R (21)
R31 *0_4 INT_eDP_TXP1_R → INT_eDP_TXP1_R (21)
R32 *0_4 INT_eDP_TXN1_R → INT_eDP_TXN1_R (21)

Pine 18: keep 80 Mile Trace

+3.3V_2136_A
+1.2V_2136
+3.3V_2136_D
+SWR_LX

R27 100k/F_4
EDP_HPD_2136

U2 RTD2136R

1	DP_HPD	42	TXO0-
2	TESTMODE	41	TXO0+
3	AUX-CH_N	40	TXO1-
4	AUX-CH_P	39	TXO1+
7	LANE0P	38	TXO2-
8	LANE0N	37	TXO2+
9	LANE1P	36	TXOC-
10	LANE1N	35	TXOC+
13	CIICSCL1	34	TXO3-
14	CIICSDA1	33	TXO3+
45	MIICSDA1	32	TXE0-
46	MIICSCL1	31	TXE0+
47	MIICSDA0	30	TXE1-
48	MIICSCL0	29	TXE1+
49	NC	28	TXE2-
		27	TXE2+
		26	TXEC-
		25	TXEC+
		24	TXE3-
		23	TXE3+
		44	BL_EN

TXLOUT0-_2136 (21)
TXLOUT0+_2136 (21)
TXLOUT1-_2136 (21)
TXLOUT1+_2136 (21)
TXLOUT2- (21)
TXLOUT2+ (21)
TXLCLKOUT- (21)
TXLCLKOUT+ (21)
TXUOUT0- (21)
TXUOUT0+ (21)
TXUOUT1- (21)
TXUOUT1+ (21)
TXUOUT2- (21)
TXUOUT2+ (21)
TXUCLKOUT- (21)
TXUCLKOUT+ (21)
LVDS_BLON_2136 → LVDS_BLON_2136 (21)

(4) INT_eDP_AUXN
(4) INT_eDP_AUXP
INT_eDP_AUXN C24 0.1U/10V_4 INT_eDP_AUXN_2136
INT_eDP_AUXP C25 0.1U/10V_4 INT_eDP_AUXP_2136

(4) INT_eDP_TXP0
(4) INT_eDP_TXN0
(4) INT_eDP_TXP1
(4) INT_eDP_TXN1
INT_eDP_TXP0 C26 0.1U/10V_4 INT_eDP_TXP0_2136
INT_eDP_TXN0 C27 0.1U/10V_4 INT_eDP_TXN0_2136
INT_eDP_TXP1 C28 0.1U/10V_4 INT_eDP_TXP1_2136
INT_eDP_TXN1 C29 0.1U/10V_4 INT_eDP_TXN1_2136

SCL1_2136
SDA1_2136
(21) EDIDDATA_2136
(21) EDIDCLK_2136
SDAT_2136
SCLK_2136

(12,13,19,27) SMB_RUN_CLK
(12,13,19,27) SMB_RUN_DAT
R25 *0_4
R23 *0_4
Reserve

IC底部需接GND

Use 1% Res on R2178

R373 12K_4
2136_DISP_ON → 2136_DISP_ON (21)
2136_DPST_PWM → 2136_DPST_PWM (21)
R362 0_4 → DDI1_BKLT_CTRL (4,21)
11/1 Modify
R361 100K/F_4

2/6 shortpad
(13,32) MBCLK2
(13,32) MBDATA2
R26 *0_4/S SCL1_2136
R24 *0_4/S SDA1_2136
Default

+3V
R18 4.7K_4 SCLK_2136
R19 4.7K_4 SDAT_2136

Default : ROM ONLY MODE

		MODE_CFG0(PIN47) 0	MODE_CFG0(PIN47) 1
MODE_CFG1(PIN48)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE

(4,21) EDP_HPD → EDP_HPD R28 1K/F_4 → EDP_HPD_2136

(4,5,9,12,13,14,15,16,19,21,22,23,24,25,26,27,28,29,30,31,32,39,40) +3V

L8: need use CV-4709MN00 for Vendor suggestion

keep 80 Mile Trace

+3V L33 +3.3V_2136_D
PBY160808T-600Y-N(60,3A)
USING 60R 2A
C447 10U/6.3VS_6
C450 0.1U/10V/X7R_4
C451 0.1U/10V/X7R_4
CLOSE TO Pin22

+3.3V_2136_D
C456 0.1U/10V/X7R_4
C449 22U/6.3VS_6
Close to Pin18

+3V L35 +3.3V_2136_A
PBY160808T-600Y-N(60,3A)
USING 60R 1A
C463 10U/6.3VS_6
C461 0.1U/10V/X7R_4
C462 0.1U/10V/X7R_4
Close to Pin5

+SWR_LX
L7 *4.7UH_1A
+1.2V_2136
R22 0_8
C22 22U/6.3VS_6
C454 0.1U/10V/X7R_4
C23 0.1U/10V/X7R_4
C459 0.1U/10V/X7R_4
Close to Pin17
Close to Pin43
Close to Pin11

SWR MODE	LDO MODE
Stuff L8	Stuff R86

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Quanta Computer Inc.

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LID

12/9 Modify connection

(32) EMU_LID — R356 0_4 — PN_BLON — D11 RB500V-40 — BLON_CON — C435 22P/50V_4 — R354 100K/F_4

LVDS_BLON1 — R360 1K/F_4

LVDS_BLON1 — R359 100K/F_4

12/24 D11 change P/N

390mA

+VIN — 02/06 shortpad — L6 *0_8/S — +VIN_BLIGHT

C19 0.1U/25V_4

C12 0.1U/25V_4

C7 0.01U/25V_4

C17 *4.7U/25V_8

12/9 Modify

For LVDS

(20) 2136_DISP_ON — R364 0_8 — 80 mile trace — +3VLCD_CON

R365 100K/F_4

C448 4.7U/6.3VS_4

12/9 Modify

For eDP

+3V

C436 *1U/6.3V_4

U26

(19) EDP_PANEL_EN_CON — R17 *0_4 — DISP_ON_L — IN IN ON/OFF OUT GND — *AP2821KTR-G1

R506 *100K/F_4

12/25 change to 0R

L34 *0_6

C453 *0.01U/16V_4

C452 0.1U/10V_4

+3VLCD_CON

C440 *10U/6.3V_6

(20) TXUCLKOUT- — TXUCLKOUT-

(20) TXUCLKOUT+ — TXUCLKOUT+

(20) TXUOUT0+ — TXUOUT0+

(20) TXUOUT0- — TXUOUT0-

(20) TXUOUT1+ — TXUOUT1+

(20) TXUOUT1- — TXUOUT1-

(20) TXUOUT2+ — TXUOUT2+

(20) TXUOUT2- — TXUOUT2-

(20) TXLCLKOUT+ — TXLCLKOUT+

(20) TXLCLKOUT- — TXLCLKOUT-

(20) TXLOUT2+ — TXLOUT2+

(20) TXLOUT2- — TXLOUT2-

BRIGHT — R366 1K/F_4 — VADJ1

C433 22P/50V_4

12/24 Chane value

+3V — R21 4.7K_4 EDIDCLK — R16 4.7K_4 EDIDDATA

For LVDS Only:

RF

C457 *10P/50V_4

C455 *10P/50V_4

+3VLCD_CON

11/18 Modify pin38

C9 *0.047U/10V_4

C2 *0.047U/10V_4

+3V — R12 Rb 0_6 — C16 1000P/50V_4

For LVDS Only: Stuff Rb

12/24 Modify Pin24,27,38

For LVDS Only: Stuff Rc

For EDP Only: Stuff Rd

(4,20) EDP_HPD — Rc R352 0_4 — Rd R353 *0_4 EDP_HPD_R

lvds-50671-04041-001-40p-l

DFFC40FR067

GS12401-1011-9H CN2

11/1 Modify pin define

EDIDCLK_R

EDIDDATA_R

TXLOUT0-

TXLOUT0+

TXLOUT1-

TXLOUT1+

TXLOUT2-

TXLOUT2+

TXLCLKOUT-

TXLCLKOUT+

TXUOUT0-

TXUOUT0+

TXUOUT1-

TXUOUT1+

TXUOUT2-

TXUOUT2+

TXUCLKOUT-

TXUCLKOUT+

+3V_CAM

VADJ1

BLON_CON

+VIN_BLIGHT

MCM2012B900GBE

(7) USBP_CAM- — USBP_CAM- C

(7) USBP_CAM+ — USBP_CAM+ C

L8

12/13 swap Pin6/8

(23) DIGITAL_CLK — L32 BLM15AG601SN1D(600_300MA)

(23) DIGITAL_D1 — L31 BLM15AG601SN1D(600_300MA)

12/9 EMI

C434 *10P/50V_4

C437 *10P/50V_4

(20) INT_eDP_TXP1_R — C442 *0.1U/10V_4 — R9 0_4 — TXLOUT0+

(20) TXLOUT0+_2136 — R8 0_4 — TXLOUT0-

(20) TXLOUT0-_2136 — C441 *0.1U/10V_4

(20) INT_eDP_TXN1_R

(20) INT_eDP_TXP0_R — C444 *0.1U/10V_4

(20) TXLOUT1+_2136 — R11 0_4 — TXLOUT1+

(20) TXLOUT1-_2136 — R10 0_4 — TXLOUT1-

(20) INT_eDP_TXN0_R — C443 *0.1U/10V_4

(20) INT_eDP_AUXN_R — C445 *0.1U/10V_4

(20) EDIDDATA — R15 0_4 — EDIDDATA_R

(20) EDIDCLK — R20 0_4 — EDIDCLK_R

(20) INT_eDP_AUXP_R — C446 *0.1U/10V_4

For EDP Only: stuff Cap

For LVDS only stuff Resistor

+3V — +3V_CAM

C438 *0.01U/16V_4

C439 *4.7U/6.3V_4

11/1 Modify

12/9 Modify

For LVDS Only: stuff Ra,Rb,Rc

R368 100K/F_4

(20) 2136_DPST_PWM — Ra R369 0_4 — BRIGHT

(20) LVDS_BLON_2136 — Rb R357 0_4 — LVDS_BLON1

Rc

11/1 Modify

12/9 Modify

For EDP Only: stuff Rd,Re,Rf

(4,20) DDI1_BKLT_CTRL — Rd R363 *10_4 — BRIGHT

(19) DDI1_BKLT_EN_CON — Re R358 *0_4 — LVDS_BLON1

Rf

For EDP Only: stuff

+3V — R367 *100K/F_4 EDIDDATA_R — R372 *100K/F_4 EDIDCLK_R

+3V — R371 *1K_4 BRIGHT — R355 *1K_4 LVDS_BLON1

(20) EDIDCLK_2136 — EDIDCLK

(20) EDIDDATA_2136 — EDIDDATA

(4,5,9,12,13,14,15,16,19,20,22,23,24,25,26,27,28,29,30,31,32,39,40) +3V

(6,19,23,27,31,32,33,34) +3VPCU

(12,22,23,24,27,28,31,39) +5V

(28,33,34,35,36,37,39,40,41,42) +VIN

LVDS Conn.

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Quanta Computer Inc.

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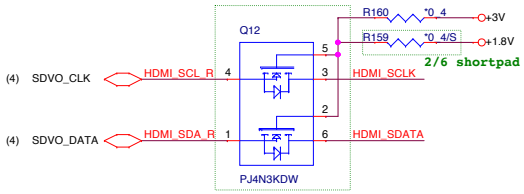
HDMI Conn.

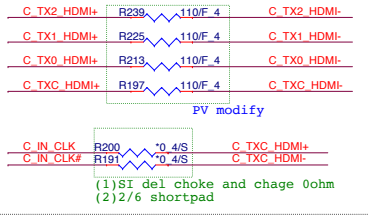
HDMI SMBus Isolation



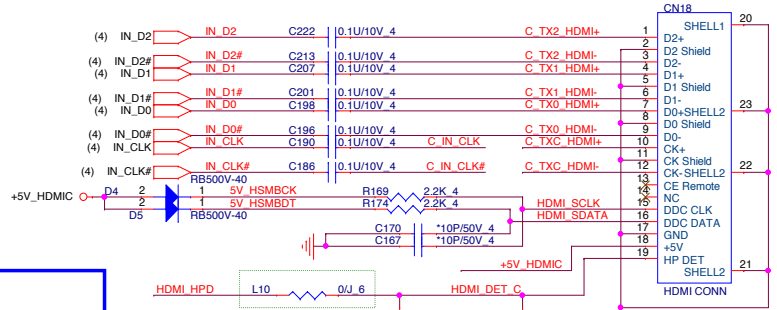
Close to HDMI connector

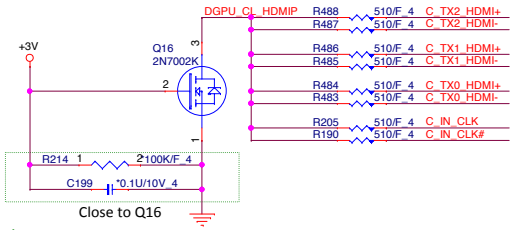
12/9 change P/N

EMI Solution



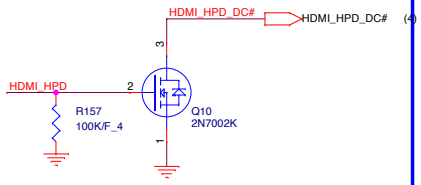
10/31
modify footprint



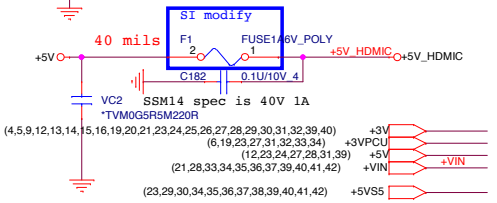


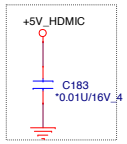
12/24 unmount R214&C199

FOLLOW W03



SI modify



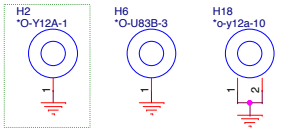


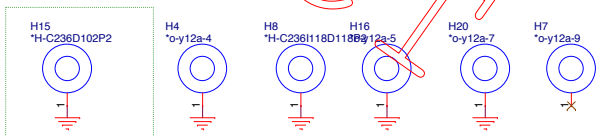
for EMI request

11/5 Change CPU Bracket

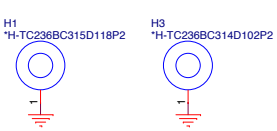
Hole

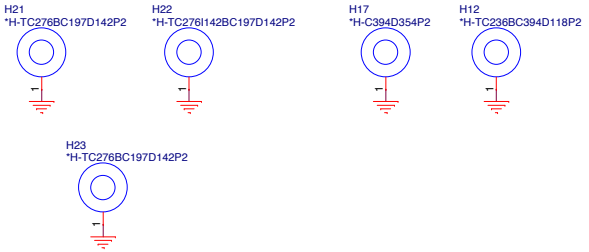
11/6

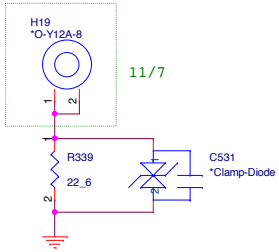


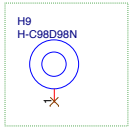


12/11

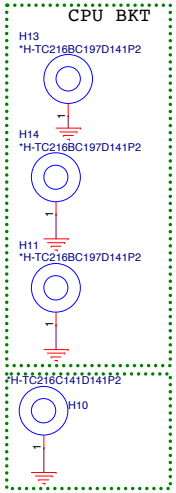






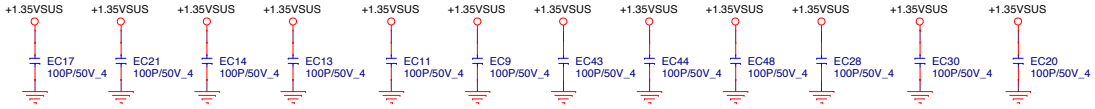


12/11



12/11

EMI



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HDMI	1A
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Close to PIN1

12/10 Modify

+3V — L26 HCB1005KF-181T15 — +3V_DVDD

C376 1U/6.3V_4 | C396 10U/6.3VS_6 | C388 0.1U/10V_4

3/25 +1.5V-->+1.8V

+1.8V — L30 HCB1005KF-181T15 — +3V_DVDD-IO

+3V — L29 *HCB1005KF-181T15

12/13 Modify
02/06 unmount

C422 0.1U/10V_4 | C421 10U/6.3VS_6

>40mils trace

+5V_AVDD — L36 HCB1005KF-181T15 — +5V

12/10 Modify

C429 10U/6.3VS_6 | C426 0.1U/10V_4 | *AZ2015-01H C507

Close to PIN26

AGND

C581 need check!

(12,22,24,27,28,31,39) +5V
(4,5,9,12,13,14,15,16,19,20,21,22,24,25,26,27,28,29,30,31,32,39,40) +3V
+1.5V

12/24 Delete U31 and related component

+5V_AVDD

C517 *2.2U/6.3V_6 | C511 *0.1U/10V_4 | C509 *1U/6.3V_4

U31 *TPS793475DBVR HPA01091DBVR
Vout Vin
BYP
GND EN

C516 *0.1U/10V_4 | C510 *0.033U/10V_4 | C508 *1U/6.3V_4

+5V

R494 *10K_4 — +5V

AGND

Vset=1.242V

+1.5V_AVDD — L24 HCB1005KF-181T15 — +1.8V

3/25 +1.5V-->+1.8V

12/10 Modify

C390 10U/6.3VS_6

AGND

Close to PIN40

TO Digital MIC

(21) DIGITAL_D1 — C403 10P/50V_4 — R319 *0_4/S — DMIC0

(21) DIGITAL_CLK — R322 100/F_4 — DMIC_CLK_R — C409 10P/50V_4

(5) ACZ_SDOUT_AUDIO — ACZ_SDOUT_AUDIO

(5) BIT_CLK_AUDIO — R326 *0_4/S — HD_BCLK

Close to PIN7 — 10U/6.3VS_6 — C412

(5) ACZ_SDIN0 — R334 33_4 — HD_SDIN0

+3V_DVDD-IO

(5) ACZ_SYNC_AUDIO — ACZ_SYNC_AUDIO

(5) ACZ_RST#_AUDIO — C428 *0.1U/10V_4 — AMP_BEEP

C525 2.2U/6.3V_4

C521 2.2U/6.3V_4 — CAP- — CAP+

+3V_DVDD — +3V_DVDD — 4.7U/6.3V_6 — C523

Close to Pin 34,35,36

TO Internal Speakers

U25

1	DVDD	
2	GPIO0/ DMIC-DATA	
3	GPIO1 / DMIC-CLK	
4	DVSS	
5	SDATA-OUT	
6	BCLK	
7	LDO3-CAP	
8	SDATA-IN	
9	DVDD-IO	
10	SYNC	
11	RESETB	
12	PCBEEP	
34	CPVEE	
35	CBN	
37	CBP	
36	CPVDD	
42	SPK-L+	
43	SPK-L-	
44	SPK-R-	
45	SPK-R+	
49	NC	
41	PVDD1	
46	PVDD2	
47	PDB	
48	SPDIF-OUT/GPIO2	
13	SenseA	
14	SenseB	
15	JDREF	
26 40	AVDD1 AVDD2	
25 38	AVSS1 AVSS2	
27 39	LDO1-CAP LDO2-CAP	
28	VREF	
32	HPOUT-L (PORT I)	
33	HPOUT-R (PORT I)	
24 23	LINE2-L LINE2-R	
22 21	LINE1-L (PORTC) LINE1-R (PORTC)	
20 19	MIC1-R (PORTB) MIC1-L (PORTB)	
31 30	MIC1-VREFO-L MIC1-VREFO-R	
18 17	MIC2-R (PORTF) MIC2-L (PORTF)	
29	MIC2-VREFO	
16	MONO-OUT	

Analog

Digital

ALC3227 x QFN48

AVDD1 AVDD2 — AGND

AVSS1 AVSS2 — AGND

LDO1-CAP LDO2-CAP — PR37 100K/F_4 — C425 10U/6.3VS_6 — C400 10U/6.3VS_6 — AGND

11/11 add

VREF — C420 0.1U/10V_4 — C423 2.2U/6.3V_4 — AGND

Close to PIN28

HPOUT-L (PORT I) — HPOUT_L — HPOUT_L (24)

HPOUT-R (PORT I) — HPOUT_R — HPOUT_R (24)

AGND SHIELD
AGND SHIELD
AGND SHIELD

LINE2-L LINE2-R

LINE1-L (PORTC) LINE1-R (PORTC)

MIC1-R (PORTB) MIC1-L (PORTB)

MIC1-VREFO-L MIC1-VREFO-R — MUTE_LED_CNTL_R2 — R325 *0_4/S — MUTE_LED_CNTL (27)

11/2

MIC2-R (PORTF) — MIC_R1 — C427 2.2U/6.3V_4 — C432 2.2U/6.3V_4 — R347 1K/F_4 — EXT_MIC_L

MIC2-L (PORTF) — MIC_L1

MIC2-VREFO — VREFOUT_C — R327 2.2K_4 — EXT_MIC_L

C414 *1U/6.3V_4 — AGND

MONO-OUT

12/24 change 2N7002K

11/11

Q41 2N7002K

R342 20K/F_4 — R504 *0_4/S — SENSE_A

0206 shortpad

R346 20K/F_4 — AGND

SENSE_A_1 — R341 39.2K/F_4 — SENSE_A

Close to codec

R323 22K/F_4 — EXT_MIC_L

C405 4.7U/6.3V_6 — AGND

R328 22K/F_4 — AGND

Close to Speaker

Speaker 4 ohm: 40mils

11/7 swap pin define

INT SPEAKER CONN

L_SPK+ — L5 TI160808U600 — L_SPK+_R

L_SPK- — L4 TI160808U600 — L_SPK-_R

R_SPK- — L2 TI160808U600 — R_SPK-_R

R_SPK+ — L3 TI160808U600 — R_SPK+_R

12/26 Change footprint to 0402
2/6 change footprint to 0603

CN3

C11 1000P/50V_4 | C14 1000P/50V_4 | C15 1000P/50V_4 | C13 1000P/50V_4

Check layout
mount location

check value

+5V_AVDD

C424 0.1U/10V_4 — AMP_BEEP — AMP_BEEP_L — R343 100K/F_4 — AMP_BEEP_R2 — C430 0.1U/10V_4

C431 0.01U/25V_4 | R344 10K_4

R338 10K_4

BSS138 Q28 — ACZ_SPKR (7)

AGND

12/24 change 2N7002K
2/10 change P/N from BAM70020002 to BAM01380016

Close to Pin 41

Close to Pin 46

+5V_DVDD — L25 HCB1005KF-181T15 — +5V_DVDD

12/10 Modify

0.1U/10V_4 — C392 — 10U/6.3VS_6 — C377

0.1U/10V_4 — C397 — 10U/6.3VS_6 — C399

PD#

(24) HP_EAPD

3/25 +1.5V-->+1.8V

for intel HSW ULT

Q22
BA039040000
BA039040020

+1.8V — R345 *2.2K_4 — Q27 *MMBT3904-7-F

ACZ_RST#_AUDIO

+3V_DVDD — R315 1K/F_4

PD# — R340 10K_4

(24,32) VOLMUTE# — D10 RB500V-40

11/2 Modify pin name
2/10 delete R294 & R296 to mount L23 for EMI

2/10 delete R259 & R261 to mount L18 for EMI

AGND — C398 *10P/50V_4 SENSE_A
C401 *10P/50V_4 EXT_MIC_L
C407 *10P/50V_4 LINEOUT_L_C
C410 *10P/50V_4 LINEOUT_R_C
C330 220P/50V_4 ACC_LED#
C333 220P/50V_4 SATA_LED#
C337 220P/50V_4 DEEP_PWRLED#
C378 *220P/50V_4 USBPW_ON#
C362 0.1U/10V_4 — +3VPCU
C359 0.1U/10V_4 — +3V
C468 0.1U/10V_4 — +3VS5
C370 0.1U/10V_4 — +5VS5

For EMI
Place close to CN92

11/12 Swap pin

10/31 delet USB3.0

MCM2012B900GBE L23

(7) USBP1+ — USBP1+_C
(7) USBP1- — USBP1-_C

(7) ACC_LED#
(5) SATA_LED#
(27) DEEP_PWRLED#
+3V
+3VPCU

12/25 change pin15 from +3VS5 to +5VS5

+5VS5

(29,32) USBPW_ON#

SENSE_A

EXT_MIC_L

(24) LINEOUT_L_C — LINEOUT_L_C
(24) LINEOUT_R_C — LINEOUT_R_C

AGND

SMD FPC 30P

CN9

EC61 1000P/50V_4 | EC40 1000P/50V_4 | EC46 1000P/50V_4 | EC51 1000P/50V_4 | EC41 1000P/50V_4

AGND

Close to CODEC

place to near U28 or under U28

R505 *0_8/S

AGND

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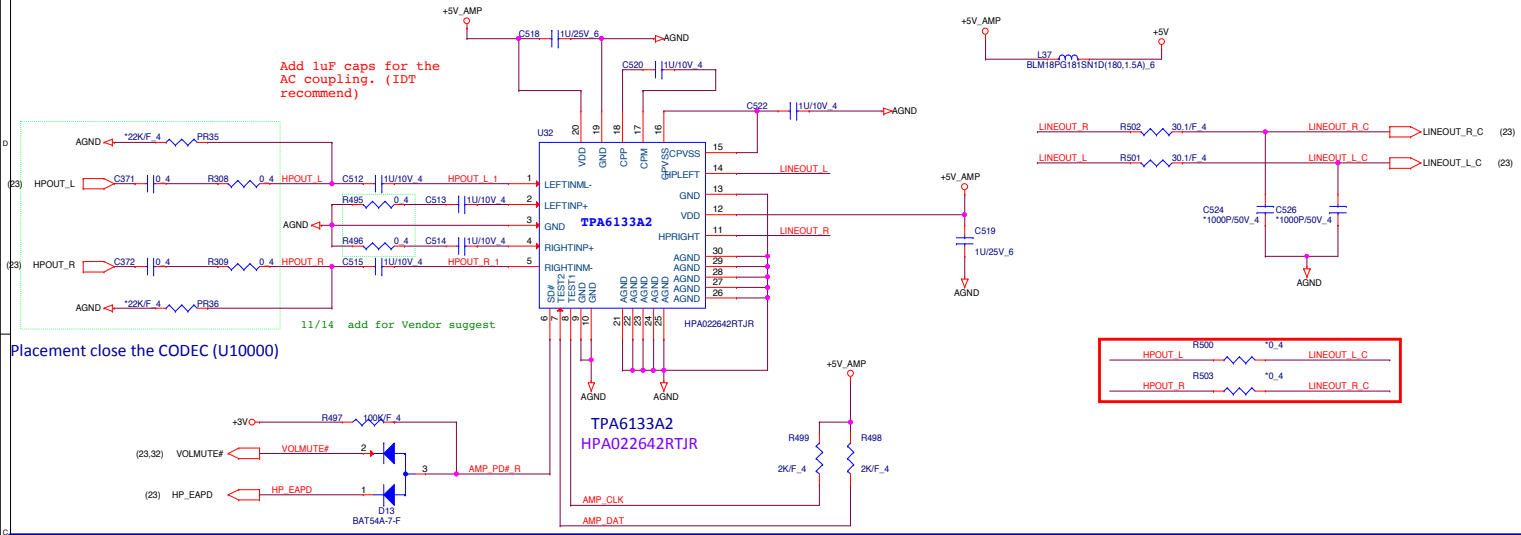
Head Phone out



(12,22,23,27,28,31,39) +5V
(21,28,33,34,35,36,37,39,40,41,42) +VIN

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HP Amp	1A
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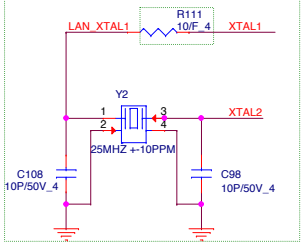
For EMI 0 ~ 22 ohm

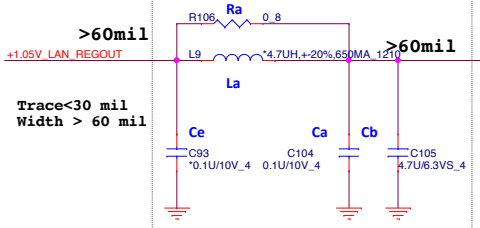
10/31 add crystal

Change Y1 PN to BG625000121: PV



Power trace Layout 寬度> 60mil

Trace<30 mil
Width > 60 mil

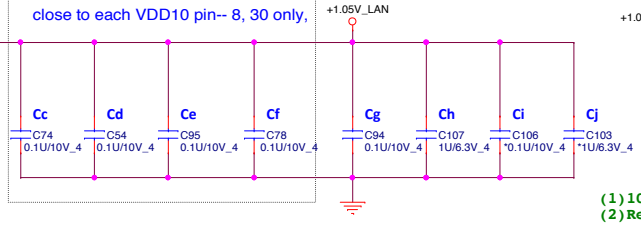


For GbE
Stuff La, Ca ,Cb

For 10/100
NA: La, Ca ,Cb
STUFF : Ra, Ce

For GbE
* Place Cc,Cd,Ce,Cf
close to each VDD10 pin-- 3, 22, 8 , 30

For 10/100 NA Ce,Cf
* Place Ce , Cf
close to each VDD10 pin-- 8, 30 only,



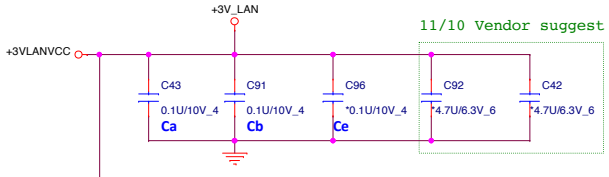
For GbE
* Place Cg and Gh close to each VDD10 pin-- 22

For 10/100

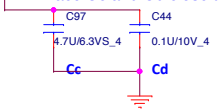
* Place Ci and Cj close to each VDD10 pin-- 30

For 10/100
* Stuff Cb and Ce only, close to each VDD33 pin-- 23, 32

For GIGA
* Stuff Ca and Cb only, close to each VDD33 pin-- 11, 32



* Place Cc and Cd close to each VDD33 pin-- 23

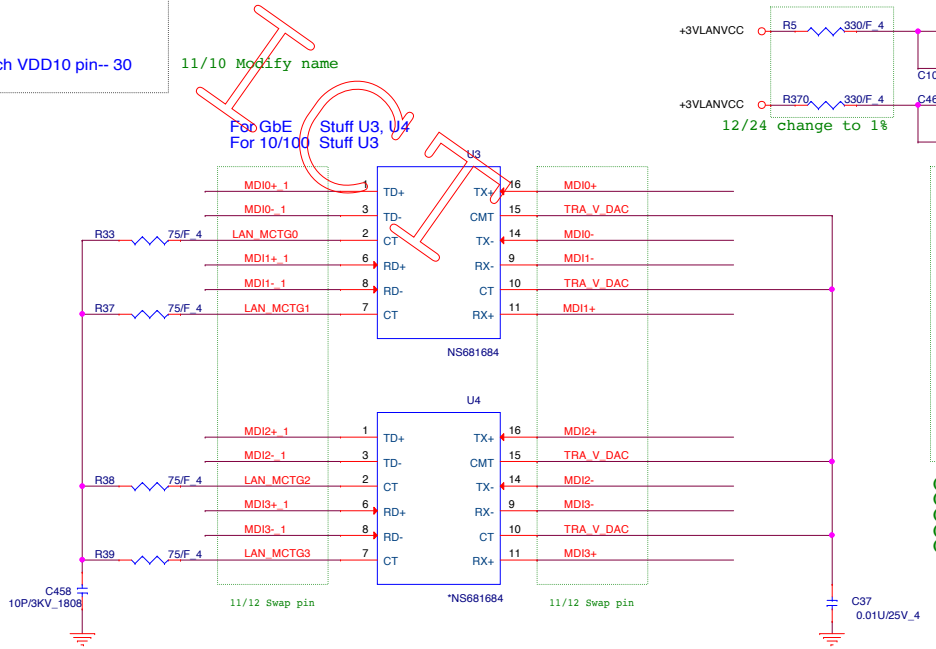


Remove For Not Using SWR mode

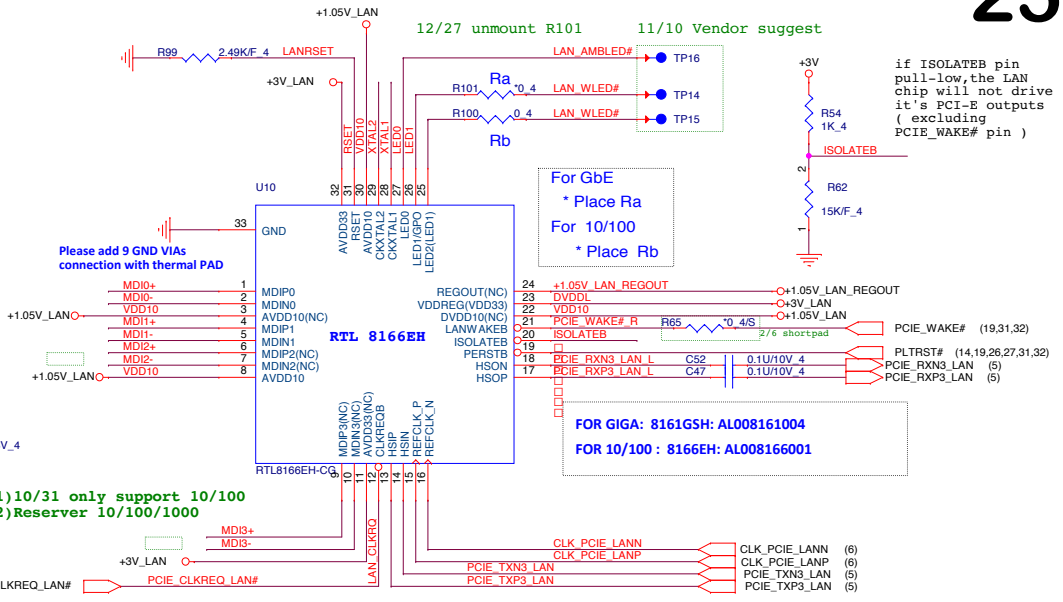
For GIGA
Stuff Cc ,Cd

For 10/100

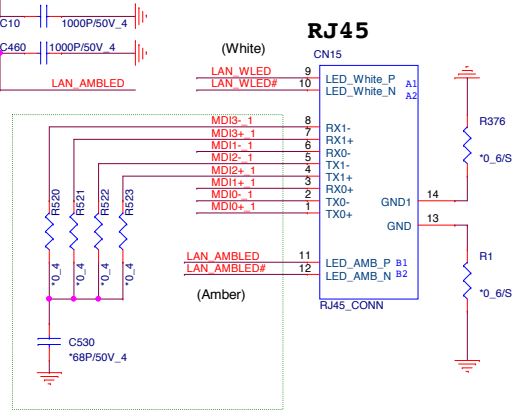
NA: Cc, Cd



12/27 unmount R101 11/10 Vendor suggest



RJ45



(1)10/31 Delete 10/100
(2)Change RJ45 P/N for U83B
(3)11/7 Reserver 10/100/1000
(4)12/17 EMI reserve TX2+/- & TX3+/- R and C.
(5)Change LAN CONN P/N & footprint

For GiGA
BOT:GST5009B LF,DB0Z06LAN00
FCE :NS892407 ,DB0LL1LAN00

For 10/100
BOT: TST1284R LF DB0EL5LAN00
FCE :NS892408 ,DB0EF7LAN01

(4,5,9,12,13,14,15,16,19,20,21,22,23,24,26,27,28,29,30,31,32,39,40) (39) +3V +3VLANVCC

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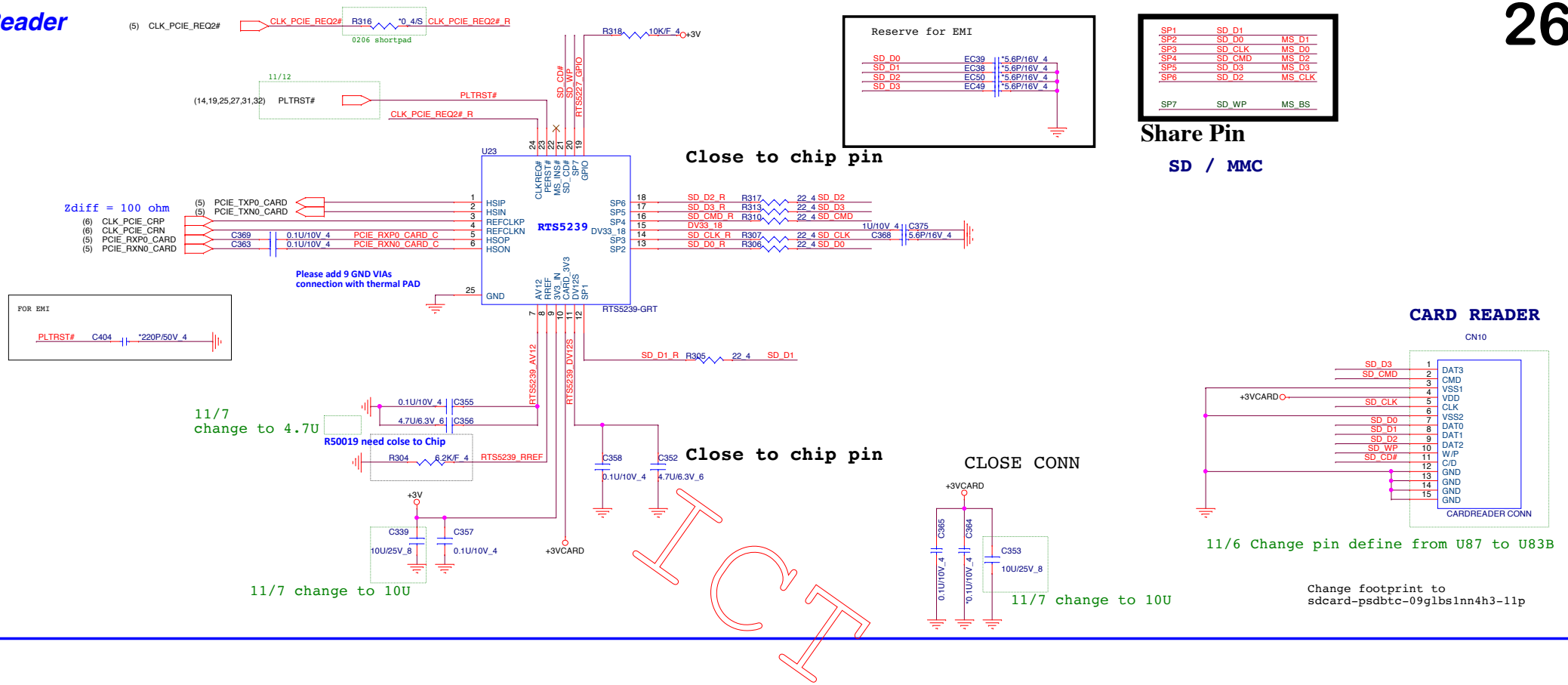
CardReader



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Quanta Computer Inc.

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CR RTS5237 & CR SOCKET	1A
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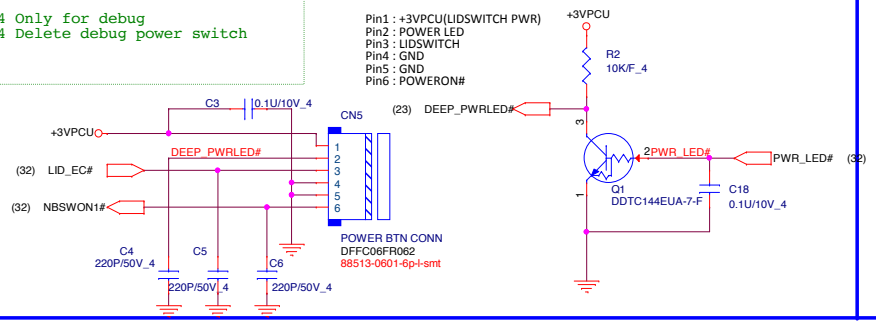
Power Botton Connector

11/14 Only for debug
12/24 Delete debug power switch

Pin1 : +3VPCU(LIDSWITCH PWR)
Pin2 : POWER LED
Pin3 : LIDSWITCH
Pin4 : GND
Pin5 : GND
Pin6 : POWERON#



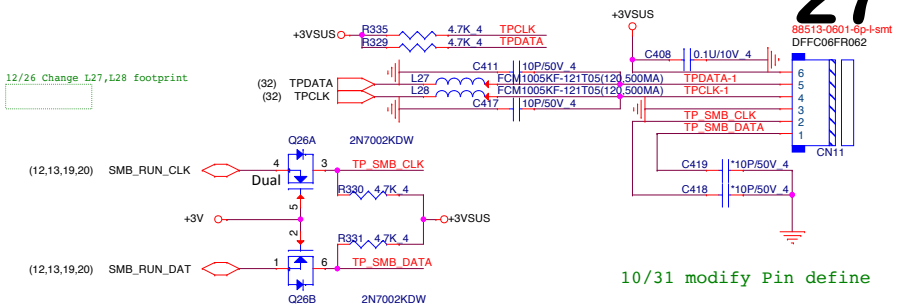
Lid Switch FOR 15"

11/2 delete LID switch

Touch Pad Connector

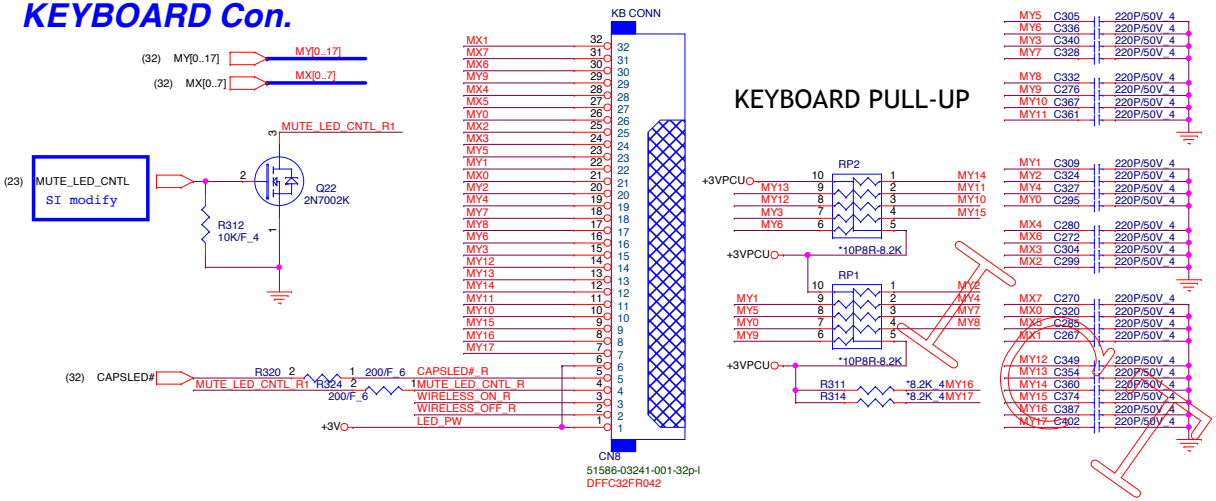
88513-0601-6p-l-smt
DFFC06FR062

12/26 Change L27,L28 footprint

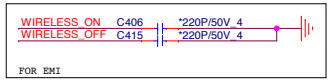


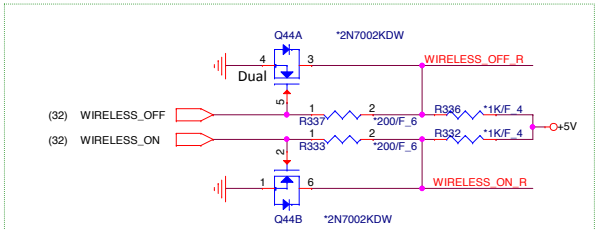
10/31 modify Pin define

KEYBOARD Con.



KEYBOARD PULL-UP





12/24 Combine to Dual MOS

11/7 Delete backlight KB

2/6 Unmount TPM and its related component

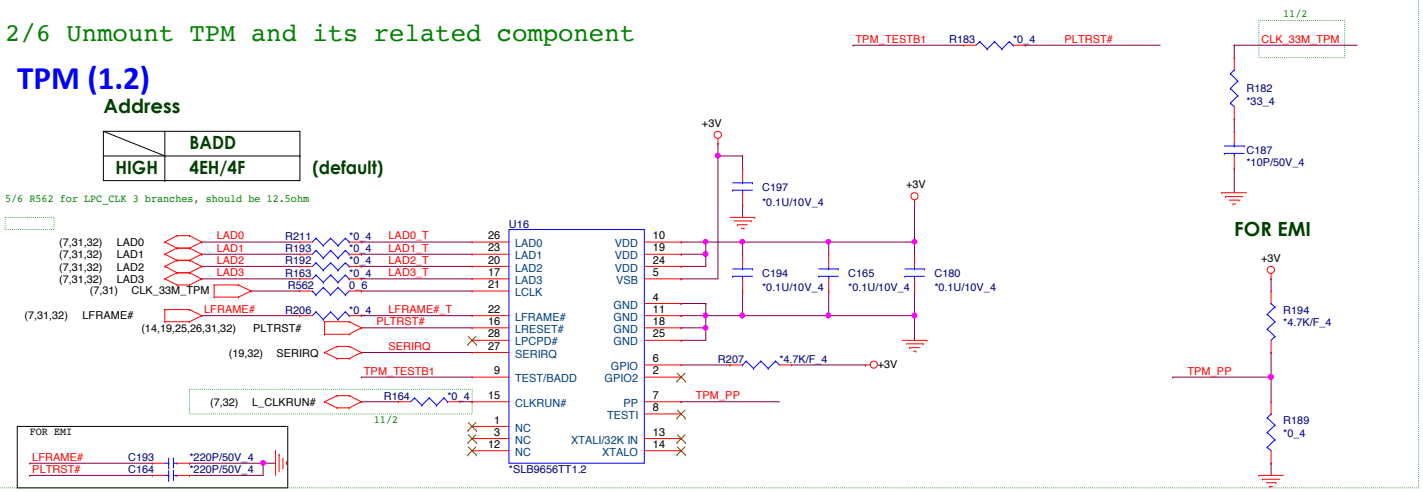
TPM (1.2)

Address

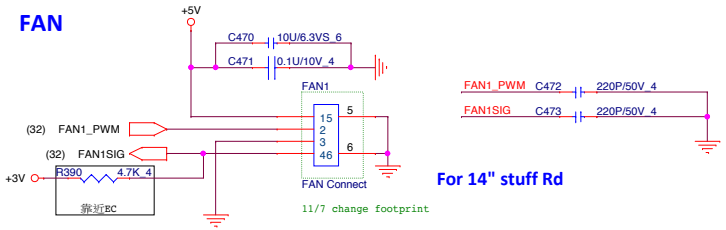
	BADD
HIGH	4EH/4F

(default)

5/6 R562 for LPC_CLK 3 branches, should be 12.5ohm



FAN



For 14" stuff Rd

11/7 change footprint

(4,5,9,12,13,14,15,16,19,20,21,22,23,24,25,26,28,29,30,31,32,39,40) +3V
(12,22,23,24,28,31,39) +5V
(6,19,23,31,32,33,34) +3VPCU

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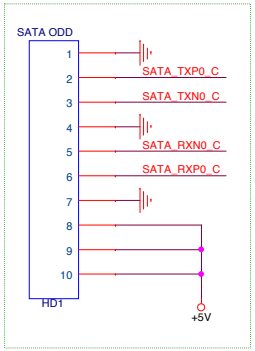
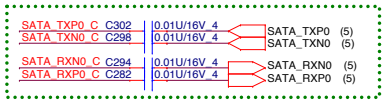
SATA HDD Connector(Cable type) 14", 15", 17"

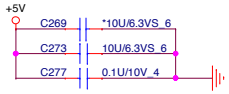
+5V: 2 A(4 Pin)
Gnd : (5 Pin)
+3V: 2 A(4 Pin)





11/12 delete 14" and 15" SATA CONN

11/1 Modify pin define and footprint
11/11 Swap pin
12/25 change footprint

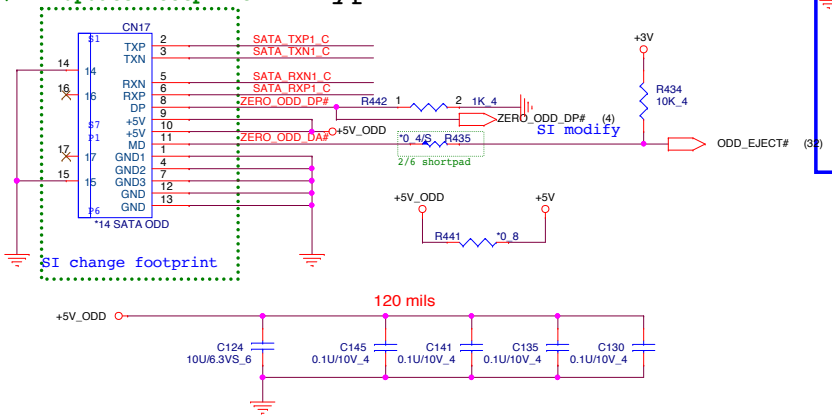


SATA ODD CONNECTOR

14" SATA ODD

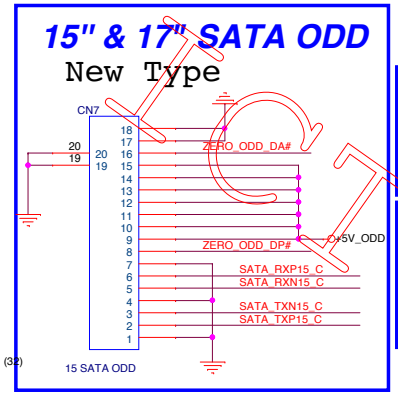
12/24 update footprint

Bypass CAP close conn

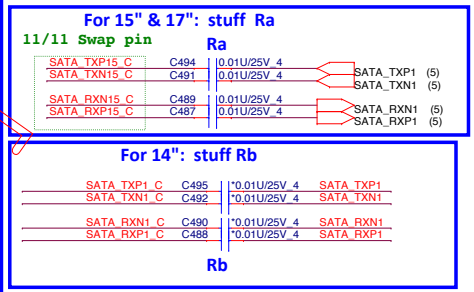


15" & 17" SATA ODD

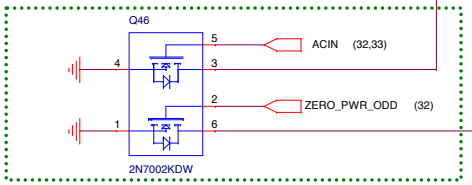
New Type



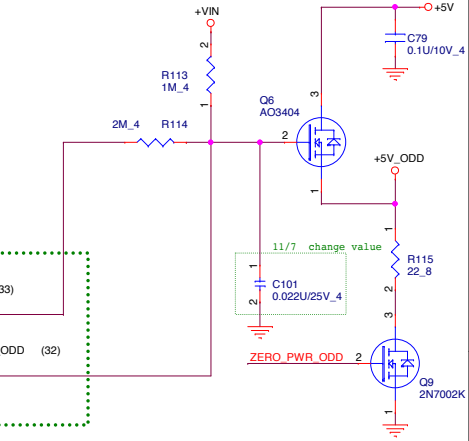
11/6 update footprint

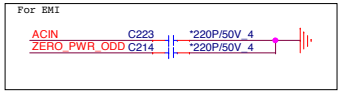


11/1 Colayout 15" & 17" ODD



12/24 change to dual MOS





(2,9,19,23,29,30,31,34,35,37,38,39,42) +3VS5

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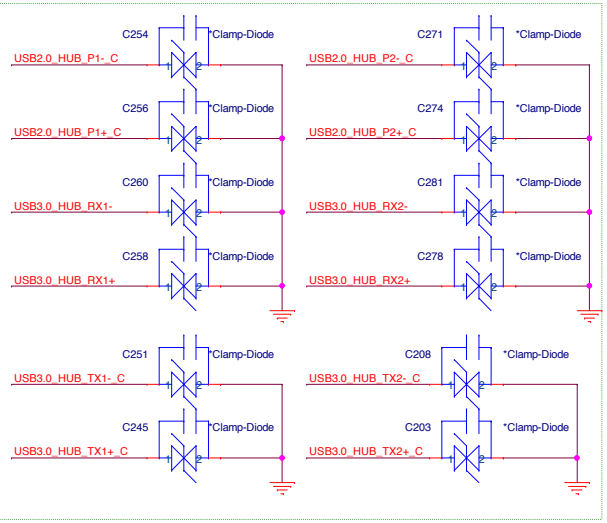
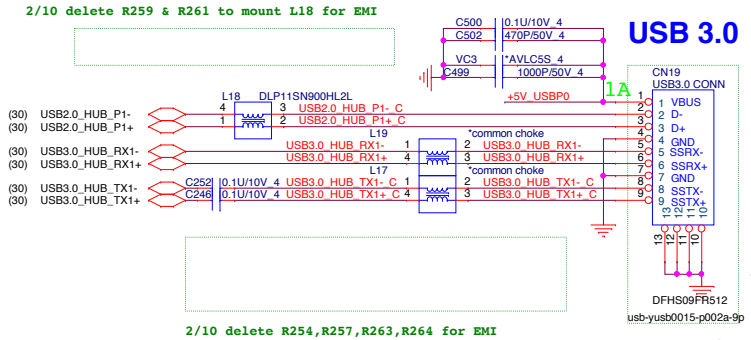
USB 2.0/3.0 Combo



11/1 modify

2/10 delete R259 & R261 to mount L18 for EMI

USB 3.0

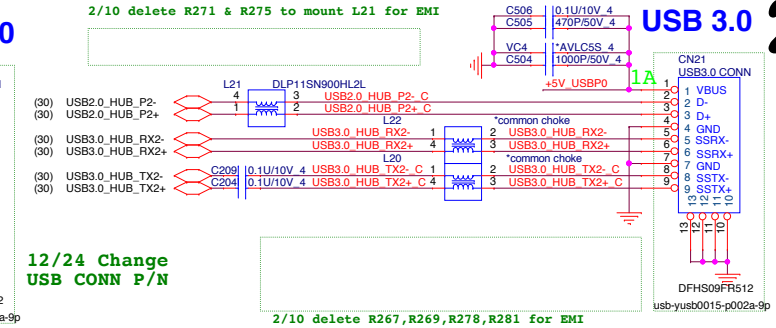


2/10 delete R254,R257,R263,R264 for EMI

11/12 modify

2/10 delete R271 & R275 to mount L21 for EMI

USB 3.0

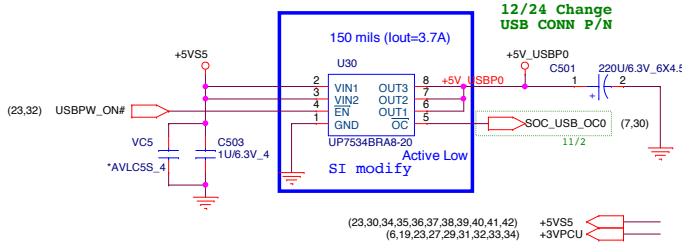


12/24 Change USB CONN P/N

2/10 delete R267,R269,R278,R281 for EMI

10/31 delet USB3.0 Charger IC

12/24 Change USB CONN P/N



2/6 shortpad

Leap Motion

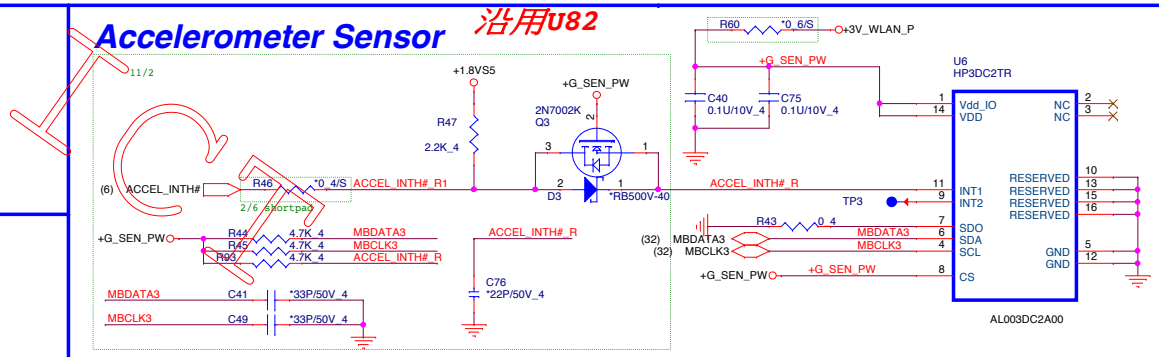
11/7 Delete Leap motion

Fingerprint Conn

11/7 Delete Fingerprint CONN

Accelerometer Sensor

沿用U82

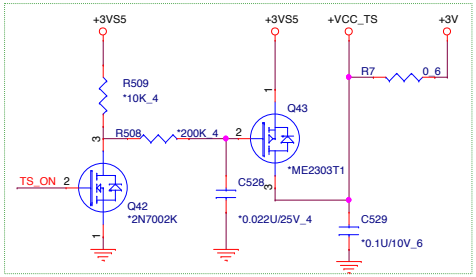


Green CLK Circuitry

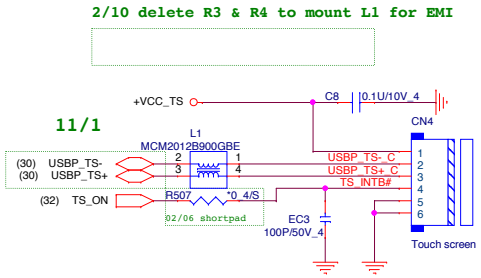
10/30 delete Green Clock

Touch screen

12/24 modify control schematic



2/10 delete R3 & R4 to mount L1 for EMI



(4,5,9,12,13,14,15,16,19,20,21,22,23,24,25,26,27,28,30,31,32,39,40) +3V
(12,22,23,24,27,28,31,39) +5V
(6,19,23,27,29,31,32,33,34) +3VPCU

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Quanta Computer Inc.

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USB3.0/GCLK/TS/FR	1A
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11/6 add leap motion
11/7 Delete leap motion

Add HUB power detect circuit: PV

2/10 Chqnge P/N
from BAM70020002 to BAM01380016

RTS5401-GR QFN76

USB3 CON1

USB3 CON2

Change USB port define: PV

Touch screen

2/6 shortpad

Add R2000 & R2001 for USB port power control: PV

Change U17 from 1MB to 128kB:PV

Reserve R2007 for USB HUB: PV

Change C210 & C209 to 18pF: PV

Change OCP2 & OCP3 control rule: PV

+1.2V_DV
1.2Volt +/- 5%
TDC : 800mA
OCP : 3.5A

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12/24

4/7 deleted +1.8V cap

4/3 removed WLAN+1.5V

5/6 for LPC_CLK 3 branches, should be 12.5ohm

PV modify to short pad

2/6 R36 shortpad

2/6 shortpad

Mini Card
WLAN/BT(Option)

Support Wake Function(Reserve)

(1)12/24 Change to dual MOS
(2)2/10 Change P/N from BAM70020047 to BAM4N3K0000

For EMI Suggestion

FOR EMI

minipci-80053-1023-52p-smt

MINI PCIE H=4.0
DFHS52FS013

PJ4N3KDW

USB 3.0 re-driver

10/31 delet USB3.0 re-driver IC

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EC P/N:AJ089870F01

IT8987

U21 — AJ089870F01 / IT8987E/AX

LPC
LAD0 10 — (7,27,31) LAD0
LAD1 9 — (7,27,31) LAD1
LAD2 8 — (7,27,31) LAD2
LAD3 7 — (7,27,31) LAD3
PLTRST# 22 — (14,19,25,26,27,31) PLTRST#
CLK_33M_KBC 13 — (7) CLK_33M_KBC
LFRAME# 6 — (7,27,31) LFRAME#
PCH_PCIE_WAKE# 17 — (19,25,31) PCIE_WAKE#
LPCPD#/WUI6/GPE6
LPCRST#/WUI4/GPD2
LPCCLK
LFRAME#

GPIO
EC_A20GATE 126 — TP30 — 11/6 delete EC_A20GATE
GA20/GPB5
SERIRQ 5 — (19,27) SERIRQ
SIO_EXT_SMI# 15 — (19) SIO_EXT_SMI#
SIO_EXT_SCI# 23 — (19) SIO_EXT_SCI#
EC_WRST# 14
WRST#
KBRST# 4 — 11/2 delete KBRST#
GPUT_CLK 16 — TP31 — (17) GPUT_CLK
KBRST#/GPB6
PWUREQ#/BBO/GPC7

PS/2
BATSHIP 113 — (33) BATSHIP
LID_EC# 123 — (27) LID_EC#
CRX0/GPC0
TMA0/GPB2
TPDATA 86 — (27) TPDATA — For Touch-Pad
TPCLK 85 — (27) TPCLK
SUSB# 88 — (19) SUSB#
DPWROK_EC 87 — (19) DPWROK_EC
SLP_SUS#_EC 90 — (19) SLP_SUS#_EC
89 — (36) SLP_SUS_ON
PS2DAT0/TMB1/GPF1
PS2CLK0/TMB0/GPF0
PS2DAT1/RTS0#/GPF3
PS2CLK1/DTR0#/GPF2
PS2DAT2/WUI21/GPF5
PS2CLK2/WUI20/GPF4

SM_BUS
SMCLK2/WUI22/GPF6/PECI
SMDAT2/WUI23/GPF7
SMCLK0/GPB3
SMDAT0/GPB4
SMCLK1/GPC1
SMDAT1/GPC2

UART
RSMRST# 119 — (19) RSMRST#
MAINON 33 — (33,37) MAINON
DSR0#/GPG6
GINT/CTS0#/GPD5
EN_OVERRIDE 108 — (5) EN_OVERRIDE — 11/8
RF_LINK# 109 — (31) RF_LINK#
RXD/SIN0/GPB0
TXD/SOUT0/GPB1

FLASH
USBPW_ON# 125 — (23,29) USBPW_ON#
BIOS_SPI_CLK 105
SSCE1#/GPG0
FSCK/GPG7
BIOS_RD# 103
BIOS_WR# 102
BIOS_CS# 101
S5_ON 100 — (34) S5_ON
FMISO/GPG5
FMOSI/GPG4
FSCE#/GPG3
SSCE0#/GPG2

KBMX
MY0 36 — (27) MY0
MY1 37 — (27) MY1
MY2 38 — (27) MY2
MY3 39 — (27) MY3
MY4 40 — (27) MY4
MY5 41 — (27) MY5
MY6 42 — (27) MY6
MY7 43 — (27) MY7
MY8 44 — (27) MY8
MY9 45 — (27) MY9
MY10 46 — (27) MY10
MY11 51 — (27) MY11
MY12 52 — (27) MY12
MY13 53 — (27) MY13
MY14 54 — (27) MY14
MY15 55 — (27) MY15
MX0 58 — (27) MX0
MX1 59 — (27) MX1
MX2 60 — (27) MX2
MX3 61 — (27) MX3
MX4 62 — (27) MX4
MX5 63 — (27) MX5
MX6 64 — (27) MX6
MX7 65 — (27) MX7
KSO0/PD0
KSO1/PD1
KSO2/PD2
KSO3/PD3
KSO4/PD4
KSO5/PD5
KSO6/PD6
KSO7/PD7
KSO8/ACK#
KSO9/BUSY
KSO10/PE
KSO11/ERR#
KSO12/SLCT
KSO13
KSO14
KSO15
KSI0/STB#
KSI1/AFD#
KSI2/INIT#
KSI3/SLIN#
KSI4
KSI5
KSI6
KSI7

CLOCK
5VS5_ON 128 — (34) 5VS5_ON
ZERO_PWR_ODD 2 — (28) ZERO_PWR_ODD
GPJ6
GPJ7

PWM
EGCLK/WUI27/GPE3 84 — EC_AOCS (31)
EGCS#/WUI26/GPE2 83 — VRON (37)
EGAD/WUI25/GPE1 82 — SUSACK#EC — TP33 — 11/1 delete SUSACK#EC
KSO16/SMOSI/GPC3 56 — MY16 (27)
KSO17/SMISO/GPC5 57 — MY17 (27)
L80HLAT/BAO/WUI24/GPE0 19 — EC_ACPRESENT (5)
L80LLAT/WUI7/GPE7 20 — EC_PWROK (2,19)
DTR1/SBUSY/GPG1/ID7 122 — ODD_EJECT# (28)
HMOSIGPH6/ID6 99 — PCI_SERR# (7)
HMISO/GPH5/ID5 98 — S0IX_PG_R — R237 *0_4 / R236 *0_4/S — HWPG (34) / S0IX_PG (39) — 11/1 delete USB cahrge control & change 11/12 add S0IX_PG
HSCK/GPH4/ID4 97 — ACIN (28,33)
HSCE#/WUI19/GPH3/ID3 96 — TP32
CTX1/WUI18/GPH2/SMDAT3/ID2 95 — MBDATA3 (29)
CRX1/WUI17/GPH1/SMCLK3/ID1 94 — MBCLK3 (29)
CLKRUN#/WUI16/GPH0/ID0 93 — L_CLKRUN# (7,27)
GPH7 3 — SUSWARN#_EC — SUSWARN#_EC (6)
PWM0/GPA0 24 — PWR_LED# (27)
PWM1/GPA1 25 — MBATLED0# (33) — TP36
PWM2/GPA2 28 — AC_LED_ON# (35)
PWM3/GPA3 29 — TS_ON (29)
PWM4/GPA4 30 — FAN1_PWM (27)
PWM5/GPA5 31 — DGPU_PROCHOT_EC# — DGPU_PROCHOT_EC# (17,40) — 3/26 added DGPU_PROCHOT_EC# FOR EMI
PWM6/SSCK/GPA6 32 — VOLMUTE# (23,24)
PWM7/GPA7 34 — CAPSLED# (27)
TACH0/GPD6 47 — FAN1SIG — FAN1SIG (27)
TACH1/TMA1/GPD7 48 — TP37 — 11/1 delete USB cahrge control & EC_RTC_RST
DAC1/GPJ1 77 — DGPU_PROCHOT# — DGPU_PROCHOT# (40) — 3/31 Add DGPU_PROCHOT#
DAC0/GPJ0 76 — WIRELESS_ON — WIRELESS_ON (27)
TMR0/WUI2/GPC4 120
TMR1/WUI3/GPC6 124 — H_PROCHOT#_EC — TP28 — 11/1 delete USB cahrge control

WAKE UP
PWRSW/GPE4 107 — NBSWON1# (27)
RI1#/WUI0/GPD0 18 — SUSC# (19)
RI2#/WUI1/GPD1 21 — DNBSWON# (19)
WUI5/GPE5 35 — SUSON (36,39)
RING#/PWRFAIL#/CK32KOUT/LPCRST#/GPB7 112 — LAN_POWER (39)

A/D D/A
ADC0/GPI0 66 — LM_Enable — TP35 — 11/11 delete leap motion
ADC1/GPI1 67 — AD_TYPE
ADC2/GPI2 68 — SYS_I (33)
ADC3/GPI3 69 — AD_AIR (33)
ADC4/WUI28/GPI4 70 — TEMP_MBAT (33)
ADC5/WUI29/GPI5 71 — RSMRST#_PWR (19,38) — 11/7 Reserver RSMRST#_PWR
ADC6/WUI30/GPI6 72 — THRM_MOINTOR1 (19)
ADC7/WUI31/GPI7 73 — ADAPTER_SEL_EC
DAC5/RIG0#/GPJ5 81 — EMU_LID — EMU_LID (21)
DAC4/DCD0#/GPJ4 80 — THRM_ALERT_HW#1
DAC3/GPJ3 79 — EC_PCIE_WAKE# (31)
DAC2/GPJ2 78 — WIRELESS_OFF — WIRELESS_OFF (27)

THRM_MOINTOR1 — C257 0.1U/10V_4

Power / Clock
+3V +3VPCU
+3V_ECACC
+3V_VSTBY
C240 0.1U/10V_4
R524 *0_4
R216 *0_4 — +3VPCU
R217 *0_4/S — +1.8VPCU
11/4 EC support 1.8V
12/27 add R524
2/6 shortpad R217
C216 C232 C261 C255 C217 C220 0.1U/10V_4 — +3VPCU
VCC VSTBY VSTBY VSTBY VSTBY VSTBY VSTBY_FSPI AVCC VSTBY
VSS VSS VSS VSS AVSS VCORE
C241 0.1U/10V_4
L15 *BLM18BA470SN1D/S
IT8502_AGND
12/9 Change footprint
2/6 shortpad
L16 *0_6/S — +3VPCU
L12 *0_6/S — +3VPCU
C250 1U/6.3V_4
C249 1000P/50V_4
C215 0.1U/10V_4

Battery / DDR Thermal
for Battery charge/charge
for DDR Thermal IC
11/7 Swap
SUSB# C236 *220P/50V_4
SUSC# C248 *220P/50V_4
DNBSWON# C253 *220P/50V_4

Gsensor
For Gsensor
H_PECI (50ohm)
Route on microstrip only
Spacing >18 mils
Trace Length: 0.4~6.125 iches
11/2 delete PECI

EC_WRST / Q21 / Q52
EC_WRST
Q21 METR3904-G
OVT_DETC
R276 4.7K_4 — +3V
D7 RB500V-40 — EC_PWROK — 12/24 D7 change P/N
R277 10K/F_4 — +3VPCU
THRM_ALERT_HW#1
Open Drain need pu high
Q52 *2N7002
DGPU_OVT# (17)
DGPU_PWROK (16,19,41)
11/2 BTM don't support "THERMTRIP", thus delete it.

R612 / C592
+3VPCU
R612 Change to 100K
R262 100K/F_4
EC_WRST
C592 Change to 1U
C259 1U/6.3V_4

H_PROCHOT# / Q15
H_PROCHOT# — H_PROCHOT# (5,37)
H_PROCHOT#_EC
R227 *10K/F_4
Q15 2N7002K
C189 *47P/50V_4

Adapter select for EC
+3VPCU R258 10K_4 ADAPTER_SEL_EC R260 *10K_4

Hi(3.3V)	==>	(65W)
Low(0V)	==>	(45W)
Medium(1.65V)	==>	(90W)

11/6 Change EC ADP define

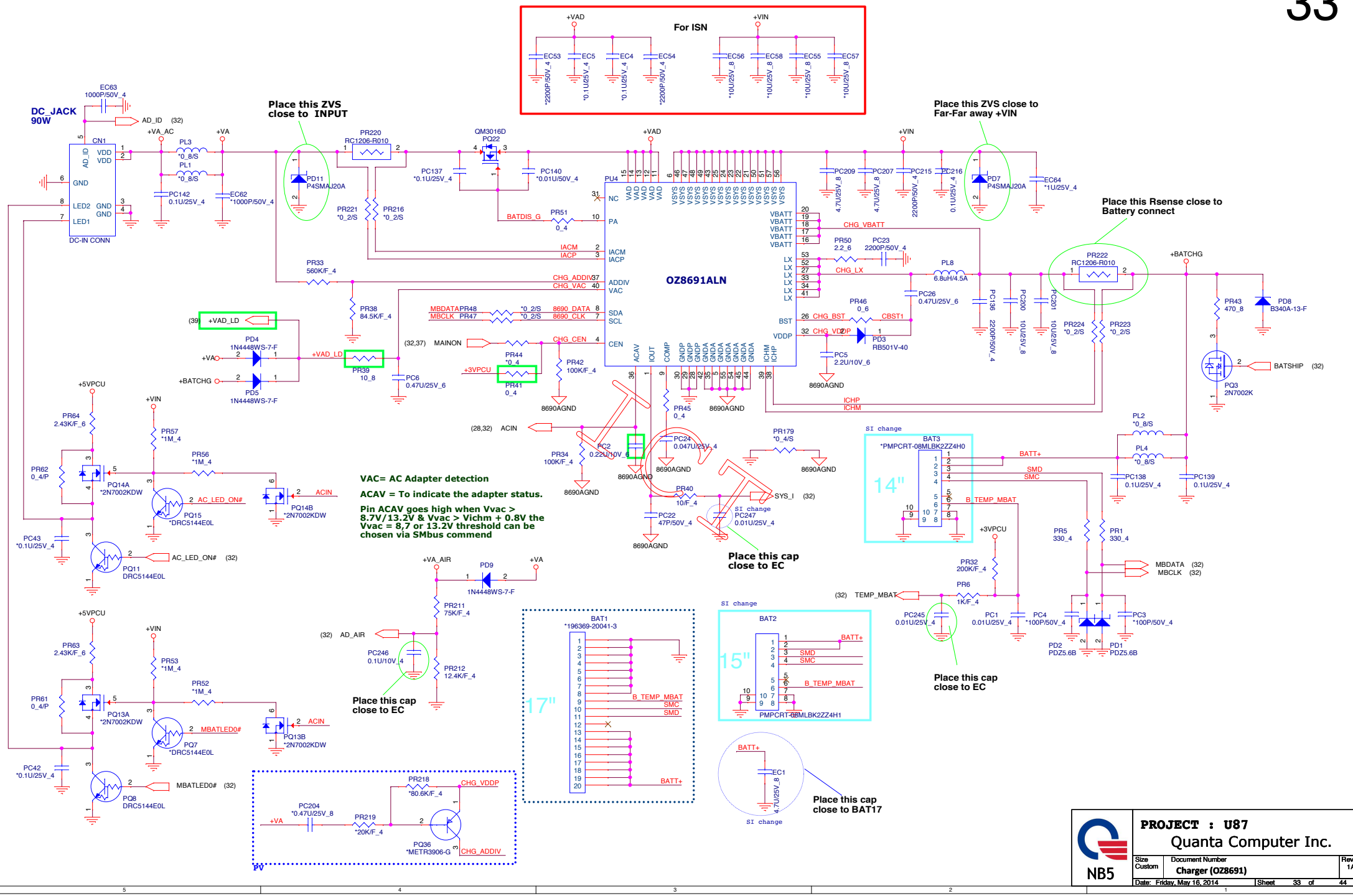
adapter Type check
1/8 duumy D6011 for power request
+3VPCU
D9 *1SS355 — Change to 1SS355 as Current loss
AD_TYPE
R266 2K/F_4
R285 100/F_4 — AD_ID (33)
D8 PDZ5.6B
C268 0.1U/10V_4
R268 12.1K/F_4
C301 100P/50V_4

Pull-up resistors
11/11 delete GPIO33_EC pull up resistor
+3V
R253 4.7K_4 GPUT_CLK
R230 4.7K_4 GPUT_DATA
R232 4.7K_4 MBCLK2
R231 4.7K_4 MBDATA2
R218 *4.7K_4 S0IX_PG
R254 4.7K_4 DGPU_PROCHOT_EC#
3/26 added DGPU_PROCHOT_EC#
11/13 add S0IX pull high
CLK_33M_KBC *10_4 — R251 *10P/50V_4 — C244
HWPG C218 0.1U/10V_4
S0IX_PG C202 0.1U/10V_4
11/13 add S0IX Cap
+3VPCU
R228 10K/F_4 NBSWON1#
R234 4.7K_4 MBCLK
R233 4.7K_4 MBDATA
R250 10K/F_4 EC_PCIE_WAKE#
R229 47K/F_4 LID_EC#
R235 10K/F_4 S5_ON

EC / CPU
EC
3/25 delete EC ROM and its related IC
(6) SOC_SPI_CLK — R493 15/F_4 BIOS_SPI_CLK
(6) SOC_SPI_MISO — R490 15/F_4 BIOS_RD#
(6) SOC_SPI_MOSI — R492 15/F_4 BIOS_WR#
(6) SOC_SPI_CS# — R491 15/F_4 BIOS_CS#
11/11
CPU
3/25 delete EC ROM and its related IC

PROJECT : Y12E-BTM
Quanta Computer Inc.

Document Number	Rev
EC (IT8987)	1A
Date: Thursday, May 08, 2014	Sheet 32 of 42


For ISN
+VAD
+VIN
EC53 *2200P/50V_4
EC5 *0.1U/25V_4
EC4 *0.1U/25V_4
EC54 *2200P/50V_4
EC56 *10U/25V_8
EC58 *10U/25V_8
EC55 *10U/25V_8
EC57 *10U/25V_8
DC_JACK 90W
DC-IN CONN
CN1
EC63 1000P/50V_4
AD_ID (32)
+VA_AC
+VA
PL3 *0_8/S
PL1 *0_8/S
PC142 0.1U/25V_4
EC62 *1000P/50V_4
Place this ZVS close to INPUT
PD11 P4SMAJ20A
PR220 RC1206-R010
QM3016D PQ22
PC137 *0.1U/25V_4
PC140 *0.01U/50V_4
PR221 *0_2/S
PR216 *0_2/S
BATDIS_G
PR51 0_4
PU4
OZ8691ALN
NC
PA
IACM
IACP
ADDIV
VAC
SDA
SCL
CEN
ACAV
IOUT
COMP
VBATT
LX
BST
VDDP
ICHM
ICHP
GNDP
GNDA
VAD
VSYS
PC209 4.7U/25V_8
PC207 4.7U/25V_8
PC215 2200P/50V_4
PC216 0.1U/25V_4
Place this ZVS close to Far-Far away +VIN
PD7 P4SMAJ20A
EC64 *1U/25V_4
Place this Rsense close to Battery connect
PR222 RC1206-R010
+BATCHG
CHG_VBATT
PR50 2.2_6
PC23 2200P/50V_4
CHG_LX
PL8 6.8uH/4.5A
PC26 0.47U/25V_6
PC5 2.2U/10V_6
PR46 0_6
CHG_BST
CBST1
PD3 RB501V-40
PC136 2200P/50V_4
PC200 10U/25V_8
PC201 10U/25V_8
PR224 *0_2/S
PR223 *0_2/S
PR43 470_8
PD8 B340A-13-F
BATSHIP (32)
PQ3 2N7002K
8690AGND
PR33 560K/F_4
PR38 84.5K/F_4
CHG_ADDIV
CHG_VAC
MBDATA PR48 *0_2/S 8690_DATA
MBCLK PR47 *0_2/S 8690_CLK
(39) +VAD_LD
PD4 1N4448WS-7-F
PD5 1N4448WS-7-F
+VA
+BATCHG
PR39 10_8
PC6 0.47U/25V_6
(32,37) MAINON
CHG_CEN
+3VPCU
PR44 *0_4
PR41 0_4
PR42 100K/F_4
PR45 0_4
(28,32) ACIN
PC2 0.22U/10V_6
PR34 100K/F_4
PC24 0.047U/25V_4
PR179 *0_4/S
PR40 10/F_4
SYS_I (32)
PC22 47P/50V_4
SI change
PC247 0.01U/25V_4
Place this cap close to EC
ICHP
ICHM
+5VPCU
+VIN
PR64 2.43K/F_6
PR57 *1M_4
PR56 *1M_4
PR62 0_4/P
PQ14A *2N7002KDW
PQ15 *DRC5144E0L
AC_LED_ON#
ACIN
PQ14B *2N7002KDW
PC43 *0.1U/25V_4
PQ11 DRC5144E0L
AC_LED_ON# (32)
VAC= AC Adapter detection
ACAV = To indicate the adapter status.
Pin ACAV goes high when Vvac > 8.7V/13.2V & Vvac > Vichm + 0.8V the Vvac = 8,7 or 13.2V threshold can be chosen via SMbus commend
+VA_AIR
PD9 1N4448WS-7-F
PR211 75K/F_4
(32) AD_AIR
PC246 0.1U/10V_4
PR212 12.4K/F_4
Place this cap close to EC
BAT1 *196369-20041-3
17"
B_TEMP_MBAT
SMC
SMD
BATT+
SI change
BAT2
15"
PMPCRT-08MLBK2ZZ4H1
BAT3 *PMPCRT-08MLBK2ZZ4H0
14"
PL2 *0_8/S
PL4 *0_8/S
PC138 0.1U/25V_4
PC139 0.1U/25V_4
PR5 330_4
PR1 330_4
MBDATA (32)
MBCLK (32)
PR32 200K/F_4
PR6 1K/F_4
(32) TEMP_MBAT
PC245 0.01U/25V_4
PC1 0.01U/25V_4
PC4 *100P/50V_4
PC3 *100P/50V_4
PD2 PDZ5.6B
PD1 PDZ5.6B
Place this cap close to EC
PR63 2.43K/F_6
PR53 *1M_4
PR52 *1M_4
PR61 0_4/P
PQ13A *2N7002KDW
PQ7 *DRC5144E0L
MBATLED0#
ACIN
PQ13B *2N7002KDW
PC42 *0.1U/25V_4
PQ8 DRC5144E0L
MBATLED0# (32)
PV
PR218 *80.6K/F_4
CHG_VDDP
PC204 *0.47U/25V_8
PR219 *20K/F_4
PQ36 *METR3906-G
CHG_ADDIV
EC1 4.7U/25V_8
Place this cap close to BAT17
PROJECT : U87
Quanta Computer Inc.
NB5
Size Custom
Document Number
Charger (OZ8691)
Rev 1A
Date: Friday, May 16, 2014
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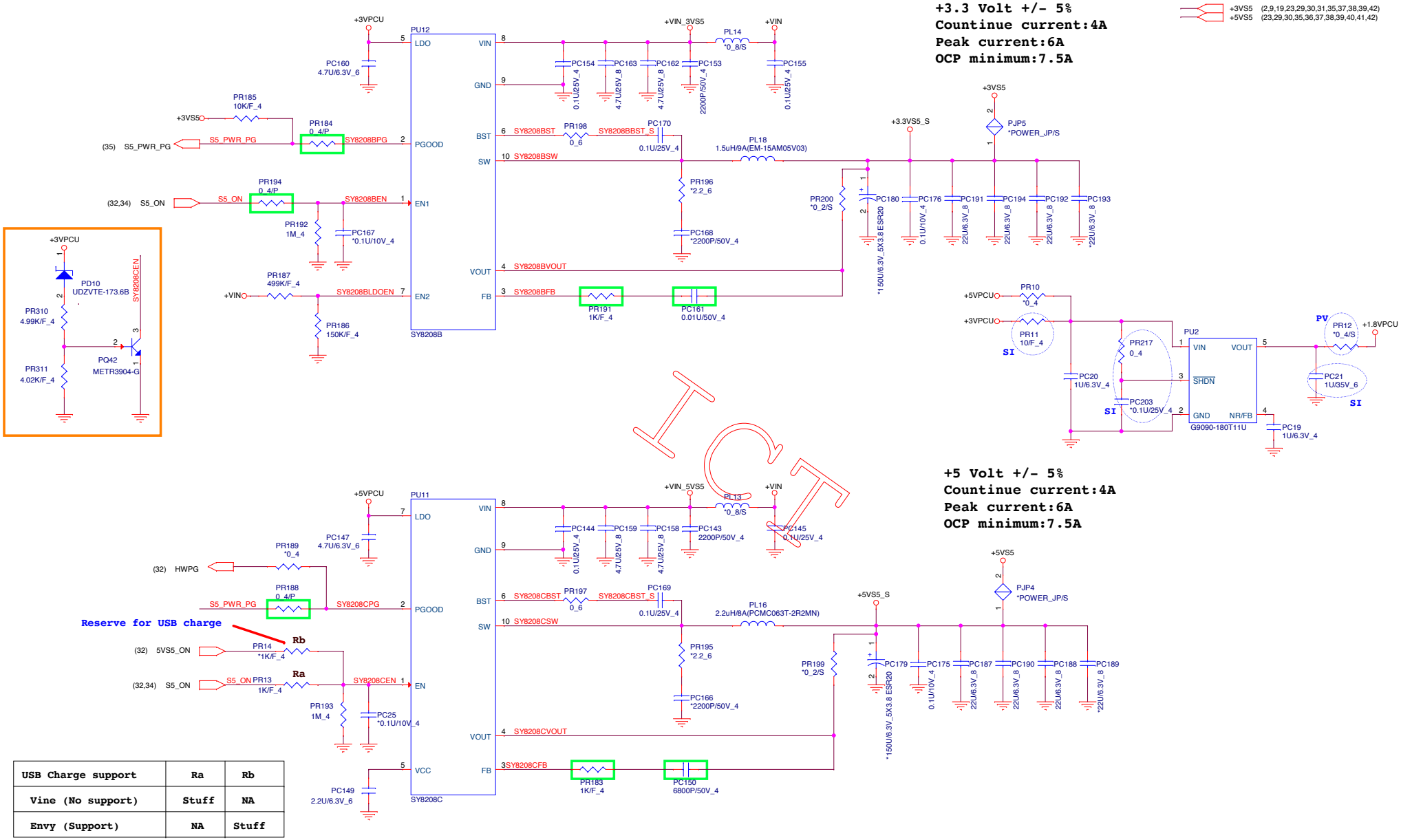
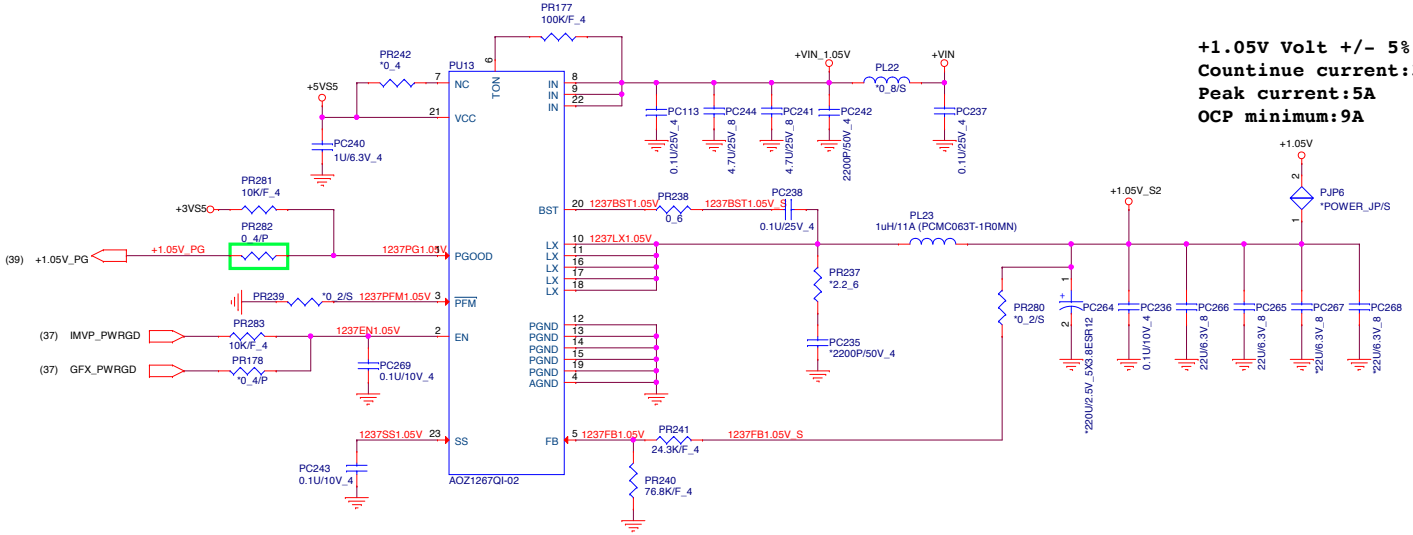
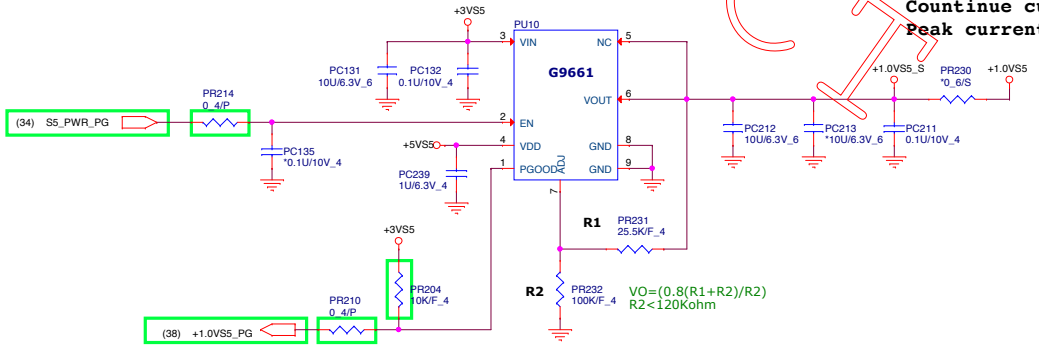


USB Charge support	Ra	Rb
Vine (No support)	Stuff	NA
Envy (Support)	NA	Stuff

PROJECT :	Y12E-BTM
Quanta Computer Inc.	
Document Number	3/5VPCU(SY8208BC)
Rev	1A
Date: Thursday, May 08, 2014	Sheet 34 of 42

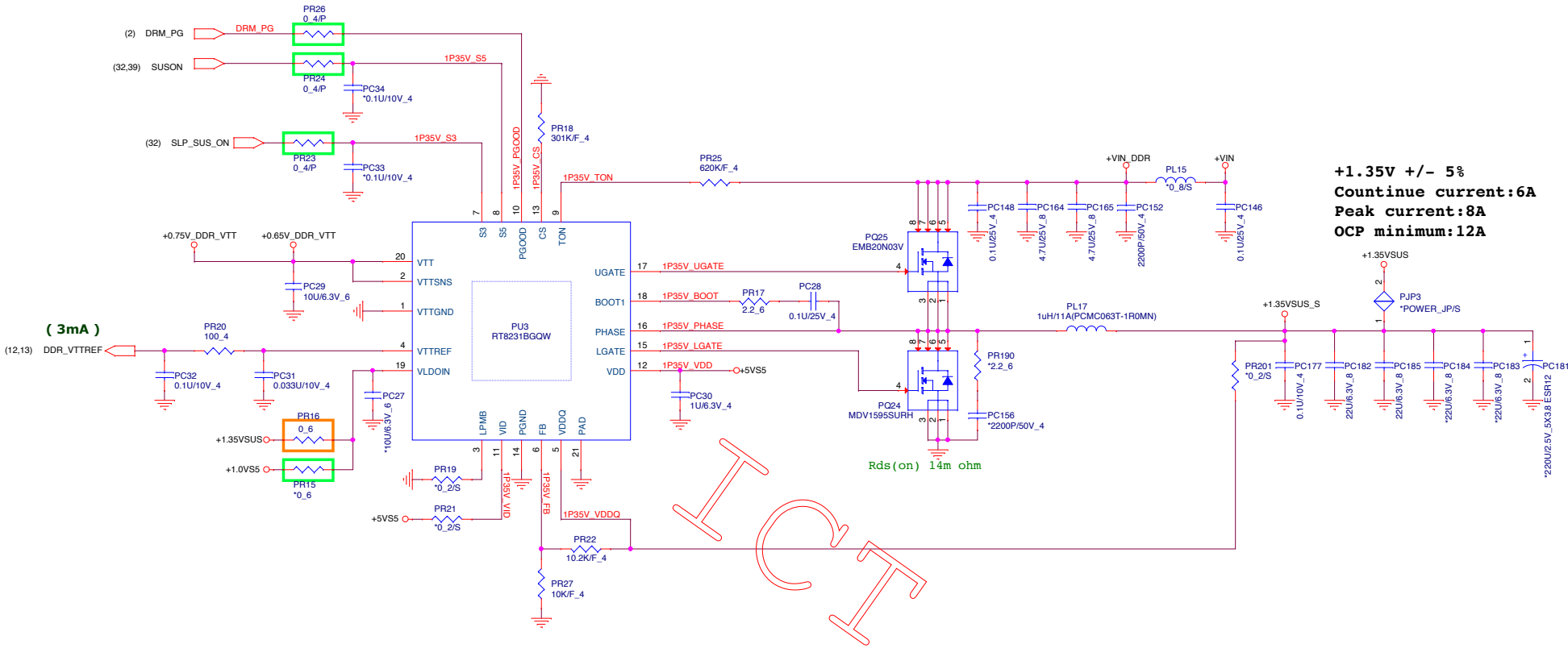


+1.05V Volt +/- 5%
Countinue current:3.75A
Peak current:5A
OCP minimum:9A



+1.0VS5 Volt +/- 5%
Countinue current:0.2mA
Peak current:0.36A

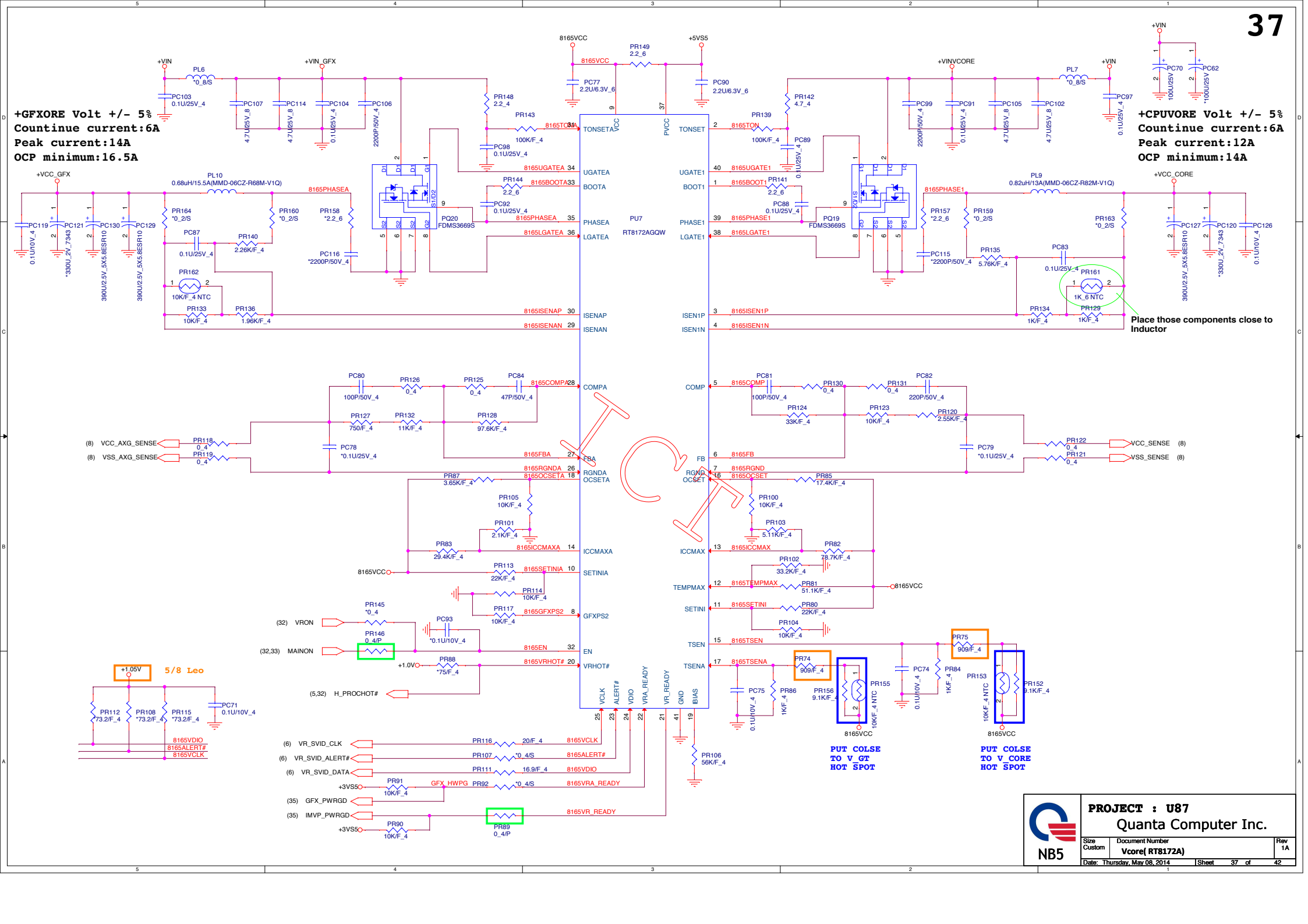
PROJECT : Y12E-BTM	
Quanta Computer Inc.	
Document Number: +1.05V/+1.5V (SY8002)	Rev: 1A
Date: Thursday, May 08, 2014	Sheet 35 of 42



PROJECT :	Y12E-BTM
Quanta Computer Inc.	
Document Number	DDR3 (RT8231B)/1.8VS5
Rev	1A
Date:	Thursday, May 08, 2014
Sheet	36 of 42

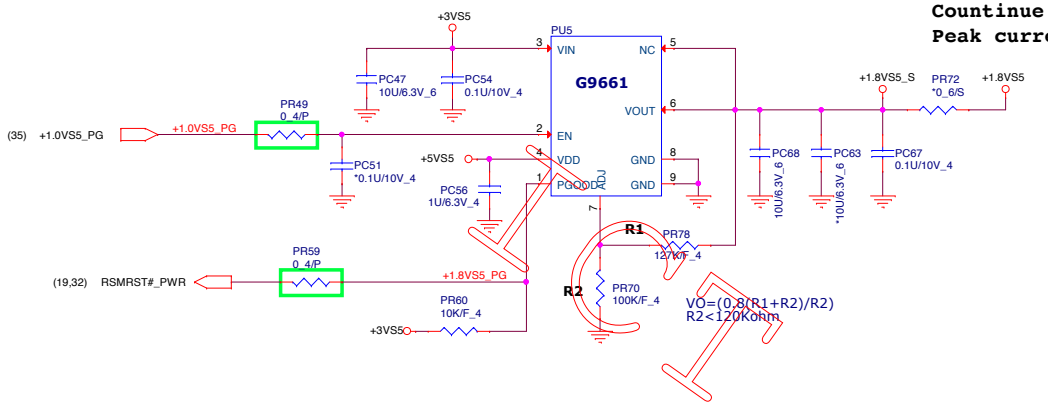
+GFXORE Volt +/- 5%
Countinue current:6A
Peak current:14A
OCP minimum:16.5A

+CPUVORE Volt +/- 5%
Countinue current:6A
Peak current:12A
OCP minimum:14A



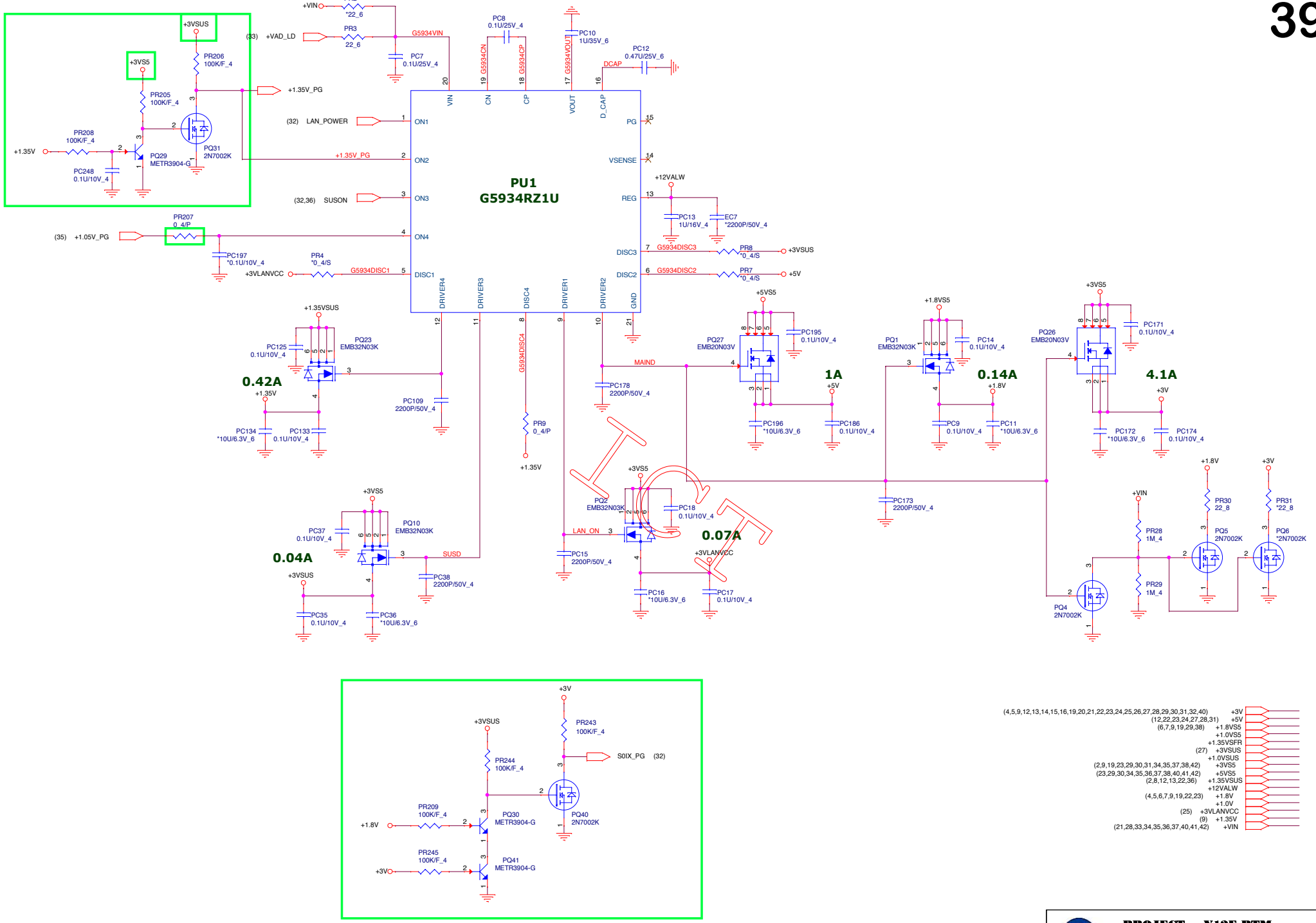
PROJECT : U87		
Quanta Computer Inc.		
NB5	Size: Custom; Document Number: Vcore(RT8172A)	Rev: 1A
	Date: Thursday, May 06, 2014	Sheet 37 of 42

+1.8VS5 Volt +/- 5%
Countinue current:0.105mA
Peak current:0.3A



PROJECT : Y12E-BTM
Quanta Computer Inc.

Document Number	Rev
1.0VS5/1.8VS5/1.24VS5	1A
Date: Thursday, May 08, 2014	Sheet 38 of 42



PROJECT :	Y12E-BTM
Quanta Computer Inc.	
Document Number	Dis-charge IC (G5934RZ1U)
Rev	1A
Date:	Thursday, May 08, 2014
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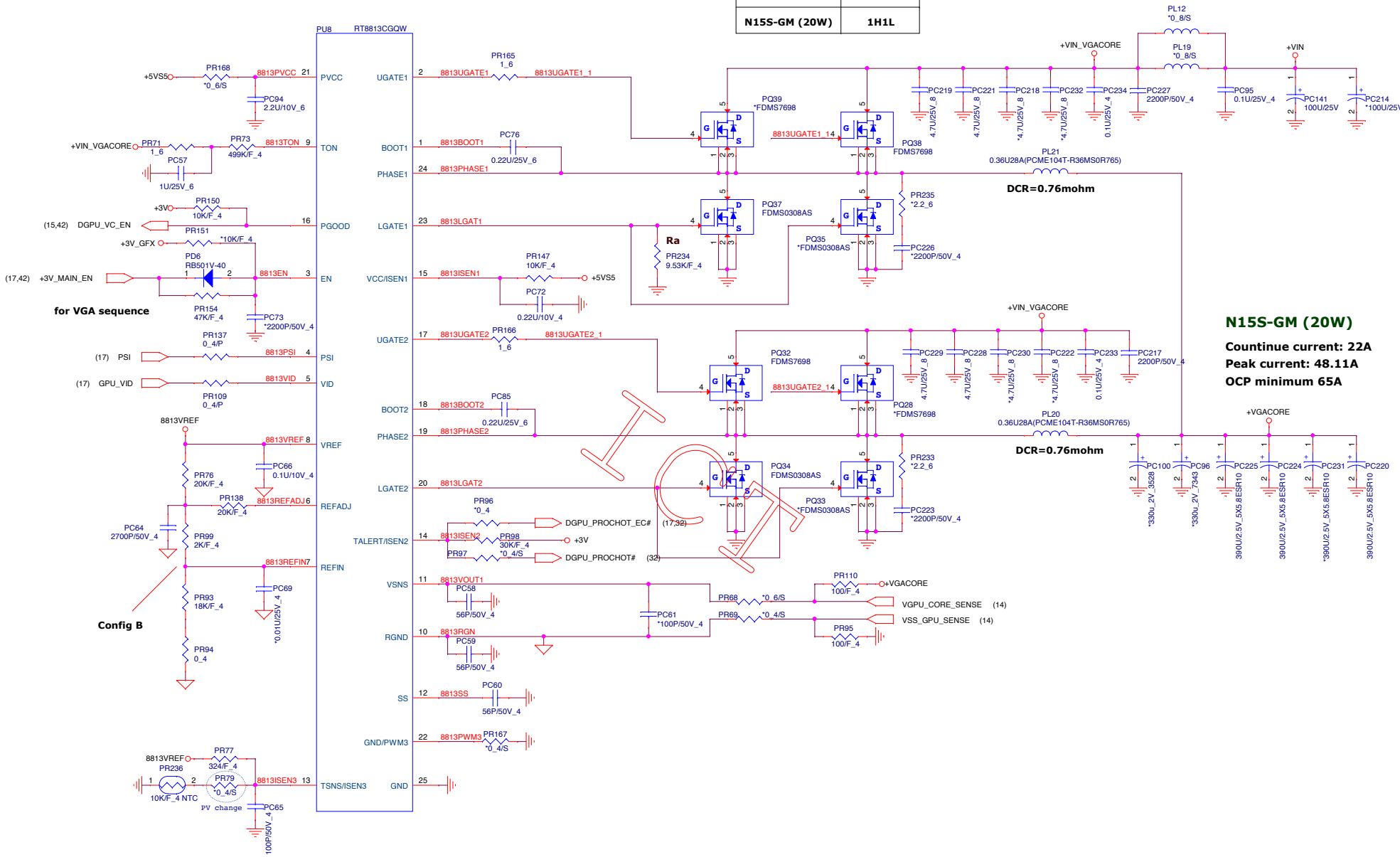
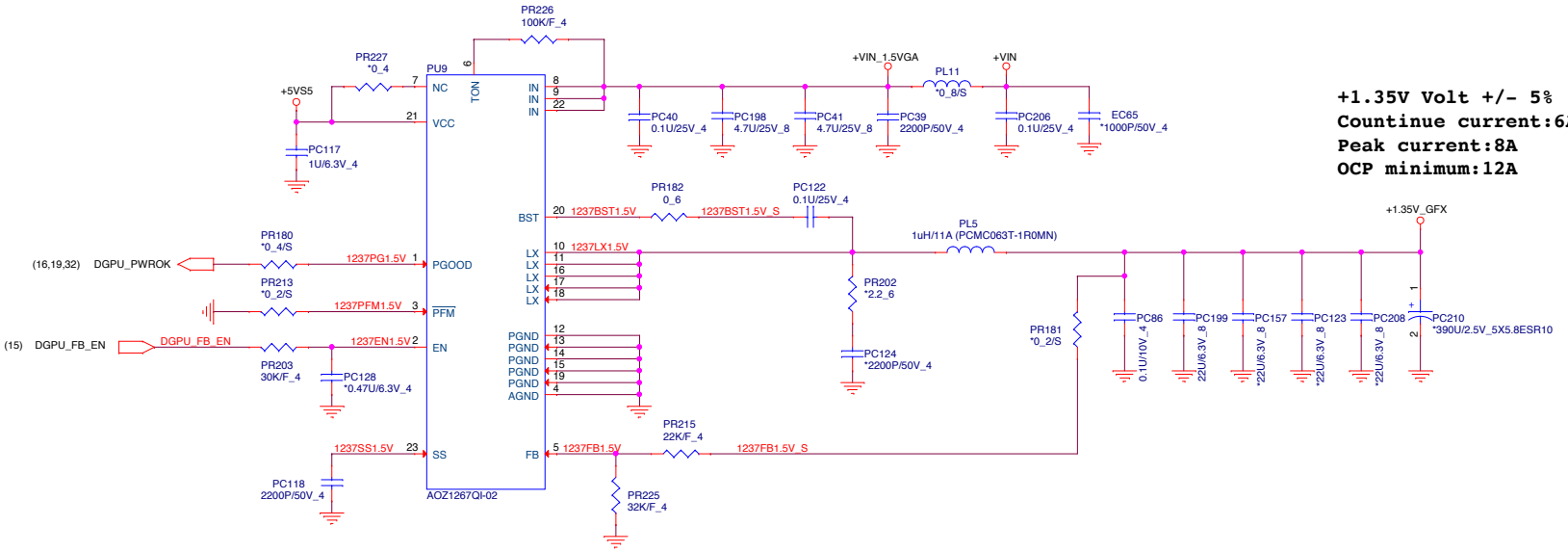
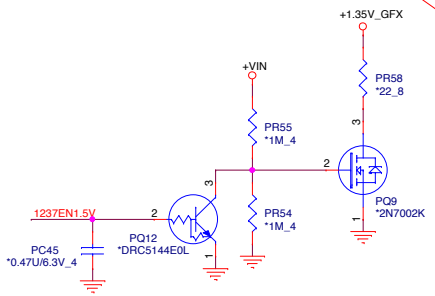
VGA Core

VGA TYPE	MOSFET
N15S-GM (20W)	1H1L



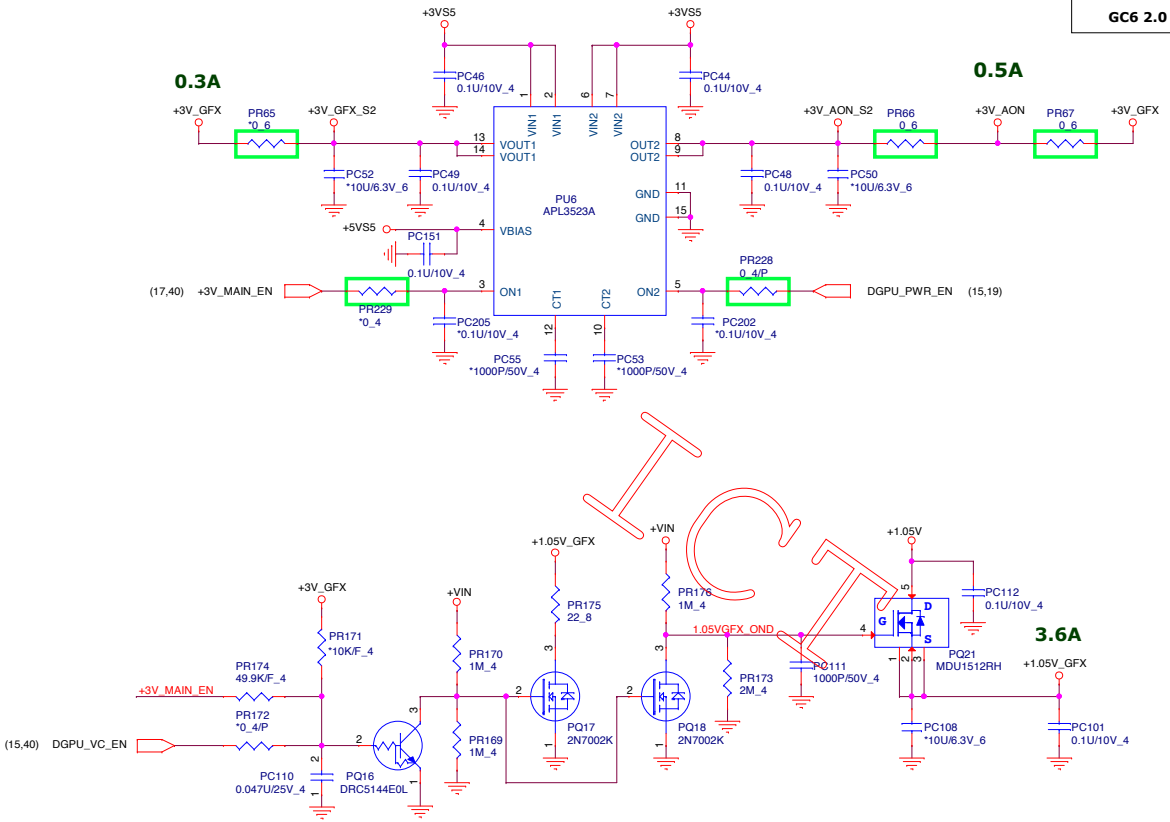




+1.35V Volt +/- 5%
Countinue current:6A
Peak current:8A
OCP minimum:12A

PROJECT :U83 Quanta Computer Inc.		
Size: Custom	Document Number: +1.35V_VGA(AOZ1237)	Rev: 1A
Date: Thursday, May 08, 2014	Sheet 41 of 42	

GC6 Support	PR65/PR229	PR67
NA	NA	Stuff
GC6 2.0	Stuff	NA



PROJECT :U83
Quanta Computer Inc.

Size	Document Number	Rev
Custom	1.05V_VGA/3V_VGA	1A
Date: Thursday, May 08, 2014	Sheet 42 of 42	